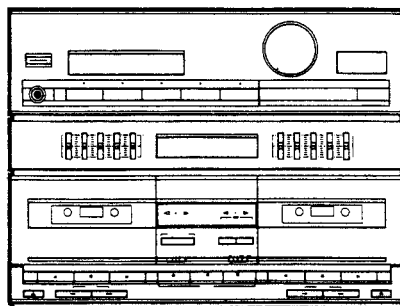


Service Manual

PIONEER®
The future of sound and vision.



ORDER NO.
ARP1918

STEREO DOUBLE CASSETTE DECK AMPLIFIER

DC-Z73

DC-Z73 HAS FOLLOWING VERSIONS:

Type	Power requirement	Export destination
HE	AC220V, 240V (switchable)*	European continent
HEWZ	AC220V, 240V (switchable)*	West Germany
YPW	AC240V only	Australia
SD	AC110V, 120V-127V, 220V, 240V (switchable)	Kingdom of Saudi Arabia and General market

*: Change the Jumper wires of assembly boards.

- This manual is applicable to the DC-Z73/HE type.
- As to the other types, refer to applicable service manuals.
- As to the system composition, refer to the S-111 service manual (ARP1937).
- Ce manuel pour le service comprend les explications de réglage en français.
- Este manual de servicio trata del método ajuste escrito en español.

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PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan

PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.

PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada

PIONEER ELECTRONIC [EUROPE] N.V. Keetberglaan 1, 2740 Beveren, Belgium

PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

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YV JAN. 1990 Printed in Japan.

1. EXPLODED VIEWS, PACKING AND PARTS LIST

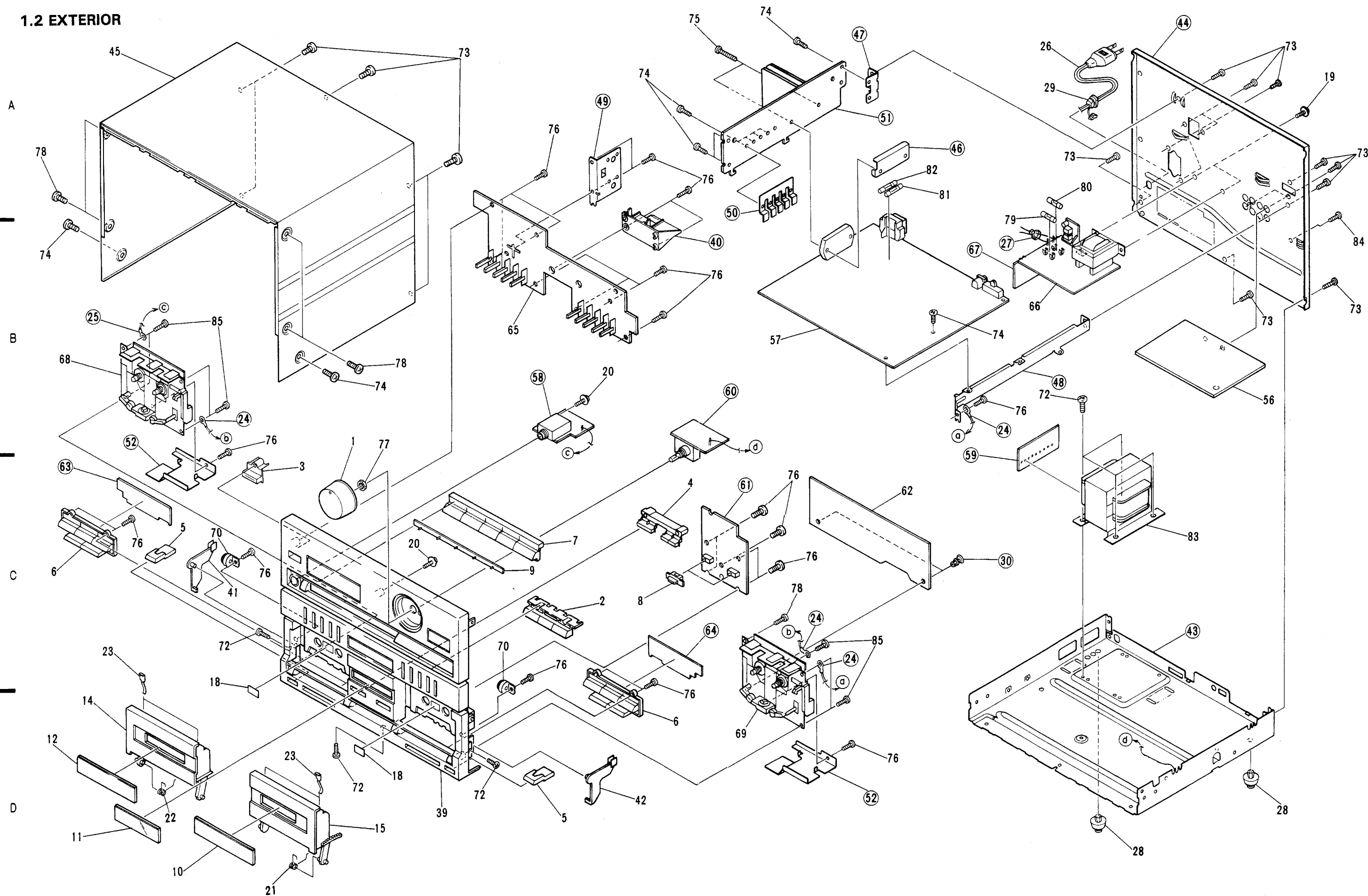
1.1 PARTS LIST OF EXTERIOR AND PACKING

NOTES:

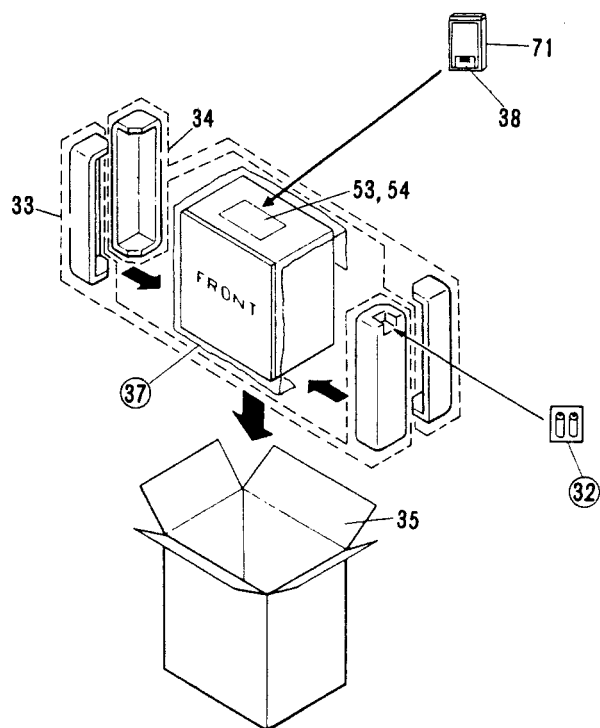
- Parts without part number cannot be supplied.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical design.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Knob (VOLUME)	AAB1135		46	Plate	
	2	Button (REC)	AAD1668		47	Plate B	
	3	Button (POWER)	AAD1674		48	Plate	
	4	Button (COPY)	AAD1676		49	Plate A	
	5	Button (EJECT)	AAD1716		50	Plate	
	6	Button (DECK)	AAD1718		51	Heat sink	
	7	Button (FUNCTION)	AAD1724		52	Shield plate (MECHA)	
	8	Slide knob	AAE1128		53	Operating instructions	ARC1180
	9	Indicator lens	AAK1801		54	Operating instructions	ARE1144
	10	Decorative plate (DOOR R)	AAK1873		55	...	...
	11	Decorative plate (DECK)	AAK1881		56	FUNCTION assembly	AWK1245
	12	Decorative plate (DOOR L)	AAK1882		57	AF assembly	AWZ2627
	13				58	HEAD PHONE assembly	
	14	Cassette door (L)	AAN1182		59	TRANS CONNECT assembly	
	15	Cassette door (R)	AAN1183		60	MAIN VR assembly	
	16	...	...		61	DECK CENTER assembly	
	17	...	...		62	DECK CTRL assembly	AWZ2635
	18	Label (PAPER)	AAX1301		63	DECK-1 SW assembly	
	19	Screw	ABA1084		64	DECK-2 SW assembly	
	20	Screw (STEEL)	ABA1095		65	AMP,GEQ CTRL assembly	AWZ2639
	21	Spring 1	ABH1062		66	POWER SUPPLY assembly	AWZ2239
	22	Spring 2	ABH1063		67	CONNECT assembly	
	23	Keep plate	ABK1011		68	Mecha unit 1	AWY1052
	24	Earth lead			69	Mecha unit 2	AWY1053
	25	Earth lead			70	Damper assembly	AXA1008
Δ	26	AC power cord	ADG1049		71	Remote control unit (CU-DC019)	AXD1133
	27	Nylon binder			72	Screw	BBZ30P060FMC
Δ	28	Leg assembly	AEC-847		73	Screw	BBZ30P080FCU
	29	Strain relief	AEC-882		74	Screw	BBZ30P080FZK
	30	Nylon revet			75	Screw	BBZ30P180FMC
	31	...	...		76	Screw	BPZ26P080FMC
	32	"AAA" DRY CELL			77	Nut	NK90FUC
	33	Front pad (L•R)	AHA1316		78	Screw	VPZ30P080FZK
	34	Rear pad (L•R)	AHA1317		79	Fuse (T1.25A/250V,FU2001)	AEK-018
	35	Packing case	AHD1826	Δ	80	Fuse (T800mA/250V,FU2003)	AEK-031
	36	...	...	Δ	81	Fuse (T1.25A/250V,FU2004)	AEK-018
	37	Sheet		Δ	82	Fuse (T1.25A/250V,FU2005)	AEK-018
	38	Battery cover	AZN1856	Δ	83	Power transformer (T2001)	ATS1253
	39	Front panel	AMB1635		84	Screw (EARTH)	VBZ35P080FMC
	40	P.C.B mold			85	Screw	VPZ30P080FMC
	41	Eject arm (L)	AMR2031				
	42	Eject arm (R)	AMR2032				
	43	Chassis					
	44	Rear panel					
	45	Bonnet case	ANE1220				

1.2 EXTERIOR



1.3 PACKING



1.4 MECHA UNIT 1 (AWY1052)

Mark	No.	Parts No.	Description	Mark	No.	Parts No.	Description
	1	AZE1018	Hall IC		51	AZN1976	Gear arm R calking assembly
	2	AZX1019	Motor		52	AZN1977	Gear arm L calking assembly
	3	AZS1054	Leaf SW (MODE)		53	AZN1326	Head lever calking assembly
	4	AZS1034	Leaf SW (CrO2)		54	AZN1327	FW assembly
	5	AZN1286	Drive arm assembly		55		Head P.C.board
	6	AZN1287	FW assembly A		56		Plate (FLY WHEEL)
	7	AZN1288	Cam gear		57	AZN1328	Azimuth plate
	8	AZN1289	Reel		58		SW arm
	9	AZN1971	FR arm		59	...	...
	10	AZN1972	Pinch arm L assembly		60	...	...
	11	AZN1973	Pinch arm R assembly		61	AZN1330	Head arm
	12	AZN1293	Gear		62	AZN1331	Azimuth spring
	13	AZN1294	H Gear		63	AZN1332	Cassette stopper
	14	AZN1793	CUE arm		64	AZN1978	Trigger arm
	15	AZB1079	Screw		65	AZN1334	Head frame
	16	...	...		66	AZN1335	Cassette guide L
	17	AZN1984	Collar C		67	AZN1336	Cassette guide R
	18	AZN1297	Motor pully		68	AZN1337	Cassette guide
	19	AZN1298	Belt		69	AZN1338	Cam gear
	20	AZN1299	Spring		70	AZN1994	Head holder
	21	AZN1300	FR lever spring		71	AZN1340	Head gear
	22	AZN1301	FWF spring		72	AZN1980	Eject arm 2
	23	AZN1302	FWR spring		73	AZN1342	Select lever
	24	AZN1303	Spring		74	AZN1343	Brake
	25	AZB1297	Screw		75	...	...
	26	AZN1305	Cable holder		76	AZN1981	Ratch lever L
	27	AZN1306	Spring		77	AZN1348	Metal
	28	AZN1307	Spring		78	AZN1347	Metal
	29	AZN1308	Spring		79	AZN1348	Cushion
	30	AZN1309	Spring		80	AZN1349	Trigger arm
	31	AZN1310	Spring		81	...	...
	32	AZN1311	Spring		82	AZS1085	Solenoid
	33	AZN1312	Spring		83	...	...
	34	AZN1313	Spring		84	AZP1022	P Head
	35	AZN1314	Spring		85	AZB1099	Screw
	36	AZN1315	Spring		86	AZN1362	Spring
	37	AZB1081	Screw		87	AZN1304	Spacer
	38	AZN1316	Nylon band		88	AZN1470	Tube
	39	AZN1995	P.C.board		89	AZB1100	Screw
	40		Jumper wire		90	AZS1087	Solenoid
	41		Wire assembly		91	AZB1101	Screw
	42		Lead wire		92	AZB1102	Spring washer
	43		Lead wire		93	AZN1471	Head spring
	44	AZN1468	Tube		94	AZB1298	Screw
	45		Mecha P.C.board calking assembly		95	AZN1833	Capstan holder
	46	AZN1319	R reel assembly		96	AZN1834	Capstan holder
	47	AZN1320	F reel assembly		97		Holder
	48	AZN1321	Reverse arm calking assembly		200	AZB1084	Nut
	49		FR lever assembly		201	AZB1085	E ring
	50	AZN1975	PLAY lever calking assembly		202	AZB1086	D screw
					203	AZB1121	P washer
					204	AZB1087	N washer

Mark	No.	Parts No.	Description
	205	AZB1089	U screw
	206	AZB1090	P washer
	207	AZB1091	Oil cut
	208	AZB1092	Oil cut
	209	...	...
A	210	AZB1094	P washer
	211	AZB1095	D screw
	212	...	...
	213	AZB1097	P washer
	214	AZB1098	M washer
	215	AZB1105	P screw
	216	AZB1106	D screw
	217	...	...
	218	AZB1164	P screw
	300	AZX1020	Motor assembly
	301	AZP1042	Head frame assembly

A

B

C

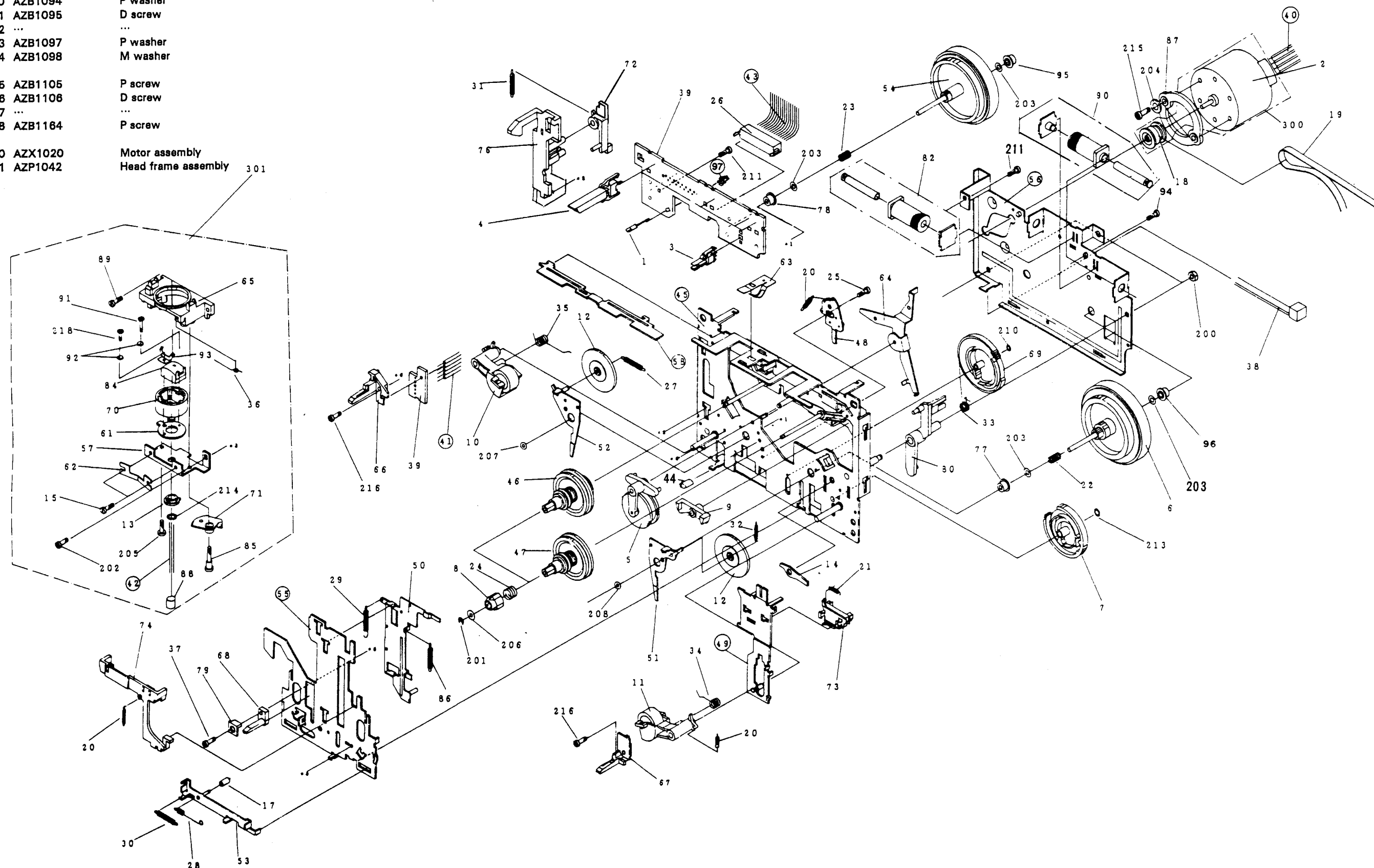
D

A

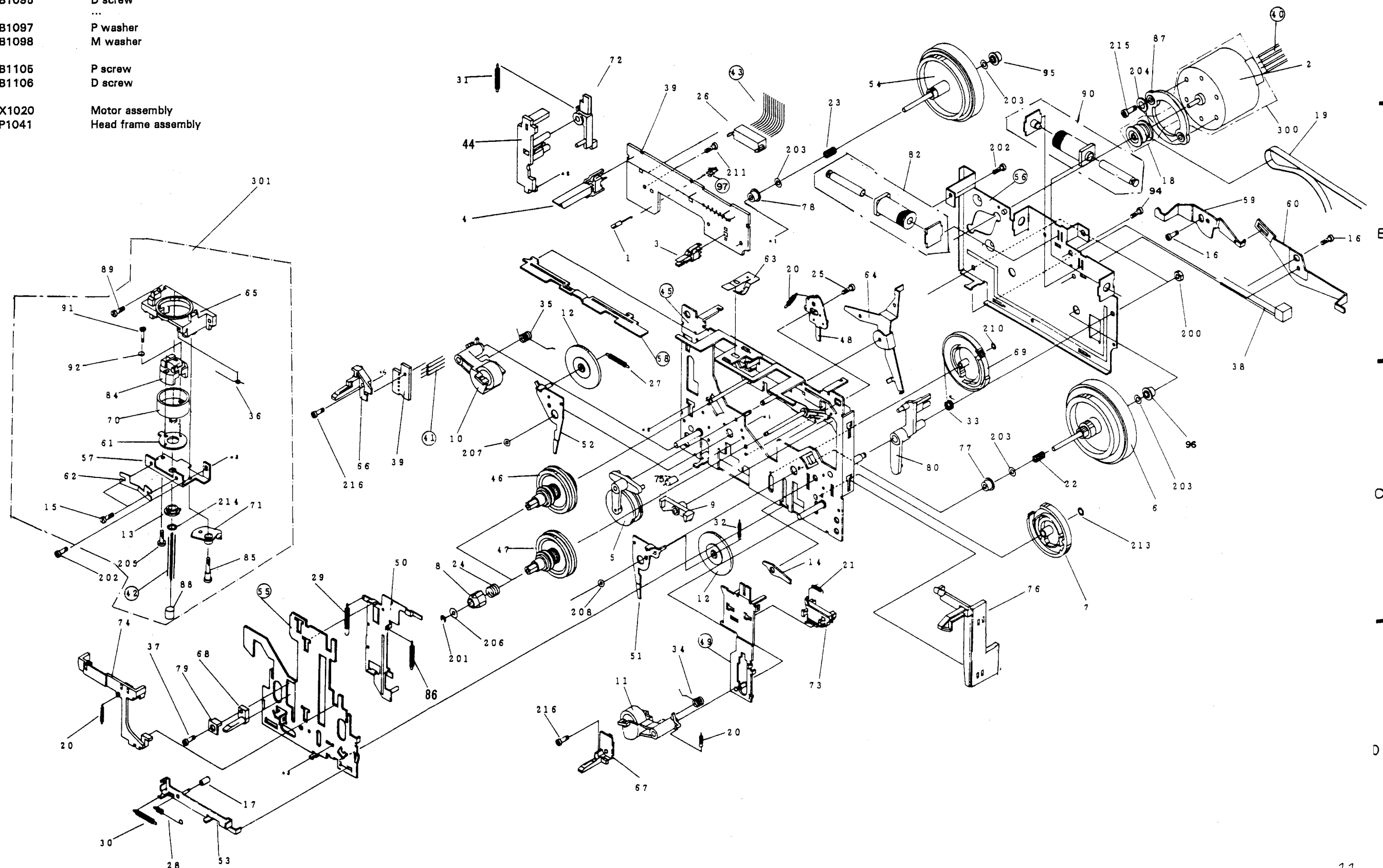
B

C

D



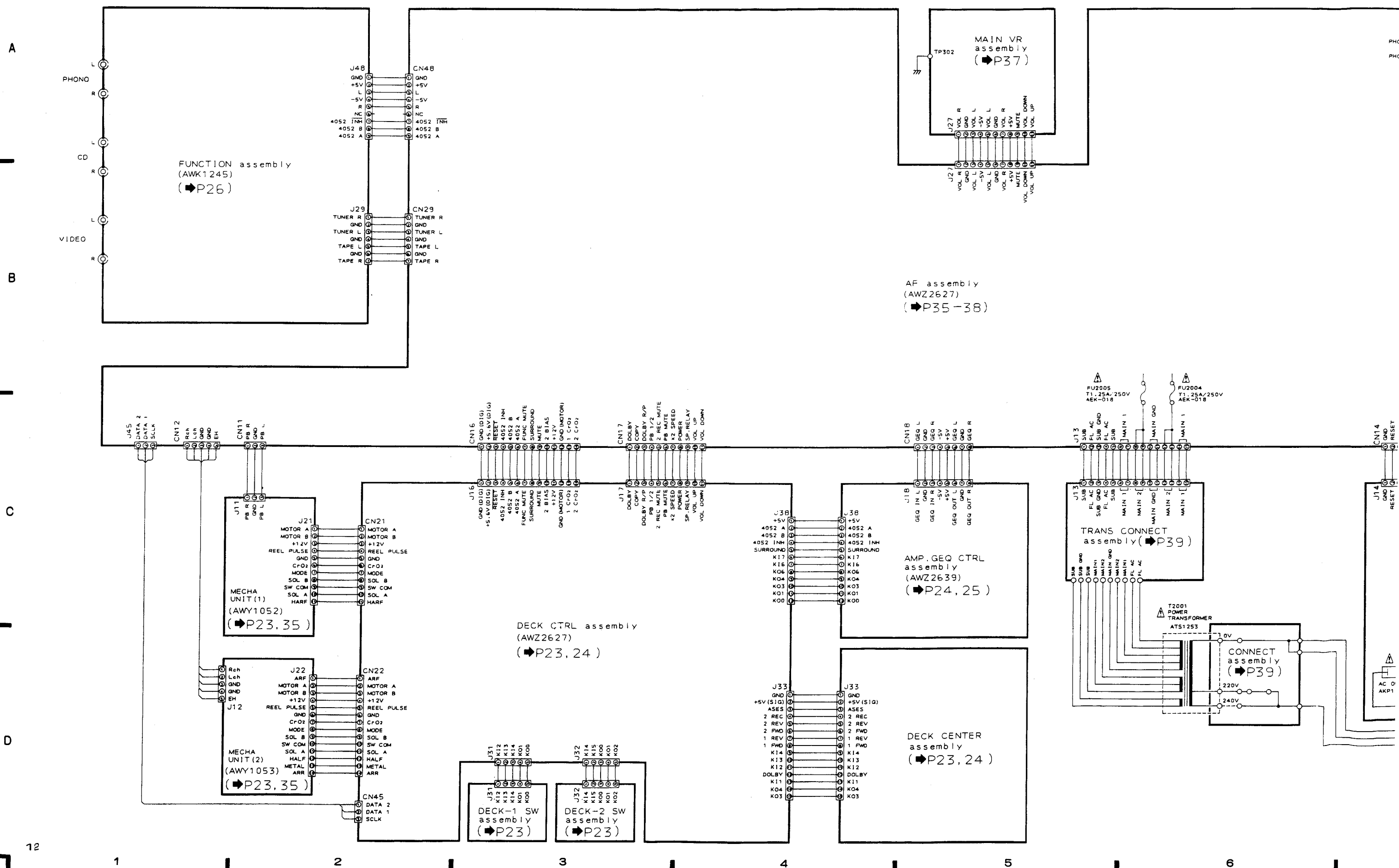
Mark	No.	Parts No.	Description
	205	AZB1089	U screw
	206	AZB1090	P washer
	207	AZB1091	Oil cut
	208	AZB1092	Oil cut
	209	...	...
	210	AZB1094	P washer
	211	AZB1095	D screw
	212	...	...
	213	AZB1097	P washer
	214	AZB1098	M washer
	215	AZB1105	P screw
	216	AZB1106	D screw
	300	AZX1020	Motor assembly
	301	AZP1041	Head frame assembly

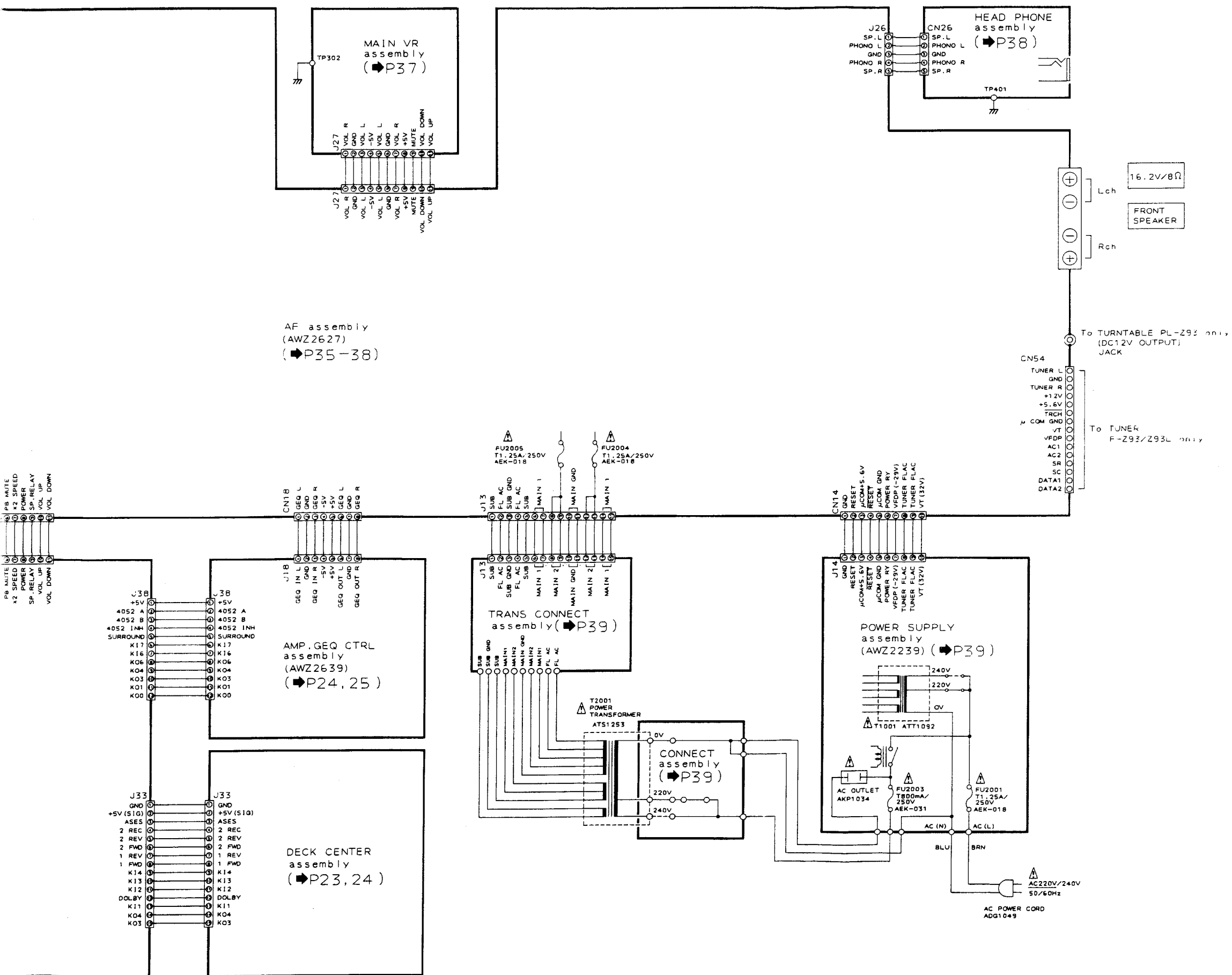


1.5 MECHA UNIT 2 (AWY1053)

Mark	No.	Parts No.	Description	Mark	No.	Parts No.	Description
	1	AZE1018	Hall IC		51	AZN1976	Gear arm R
	2	AZX1019	Motor		52	AZN1977	Gear arm L
	3	AZS1054	Leaf SW (MODE)		53	AZN1326	Head lever calking assembly
	4	AZS1034	Leaf SW (CrO2)		54	AZN1327	FW assembly
	5	AZN1286	Drive arm assembly		55		Head P.C.board
	6	AZN1287	FW assembly A		56		Plate (FLY WHEEL)
	7	AZN1288	Cam gear		57	AZN1328	Azimuth plate
	8	AZN1289	Reel		58		SW arm
	9	AZN1971	FR arm		59	AZN1988	Eject arm L
	10	AZN1972	Pinch arm L assembly		60	AZN1989	Eject arm R
	11	AZN1973	Pinch arm R assembly		61	AZN1330	Head arm
	12	AZN1293	Gear		62	AZN1331	Azimuth spring
	13	AZN1294	H Gear		63	AZN1332	Cassette stopper
	14	AZN1793	CUE arm		64	AZN1978	Trigger arm
	15	AZB1079	Screw		65	AZN1334	Head frame
	16	AZB1080	Screw		66	AZN1335	Cassette guide L
	17	AZN1984	Collar C		67	AZN1336	Cassette guide R
	18	AZN1297	Motor pully		68	AZN1337	Cassette guide
	19	AZN1298	Belt		69	AZN1338	Cam gear
	20	AZN1299	Spring		70	AZN1979	Head holder
	21	AZN1300	FR lever spring		71	AZN1340	Head gear
	22	AZN1301	FWF spring		72	AZN1980	Eject arm 2
	23	AZN1302	FWR spring		73	AZN1342	Select lever
	24	AZN1303	Spring		74	AZN1343	Brake
	25	AZB1080	Screw		75	AZN1468	Tube
	26	AZN1305	Cable holder		76	AZN1985	Ratch lever R
	27	AZN1306	Spring		77	AZN1346	Metal
	28	AZN1307	Spring		78	AZN1347	Metal
	29	AZN1308	Spring		79	AZN1348	Cushlon
	30	AZN1309	Spring		80	AZN1349	Trigger arm
	31	AZN1310	Spring		81	...	...
	32	AZN1311	Spring		82	AZS1085	Solenoid
	33	AZN1312	Spring		83	...	...
	34	AZN1313	Spring		84	AZP1014	R/P Head
	35	AZN1314	Spring		85	AZB1099	Screw
	36	AZN1315	Spring		86	AZN1352	Spring
	37	AZB1081	Screw		87	AZN1304	Spacer
	38	AZN1316	Nylon band		88	AZN1470	Tube
	39	AZN1983	P.C.board		89	AZB1100	Screw
	40		Jumper wire		90	AZS1087	Solenoid
	41		Wire assembly		91	AZB1101	Screw
	42		Lead wire		92	AZB1102	Washer
	43		Lead wire		93	...	...
	44	AZN1344	Eject lever L		94	AZB1298	Screw
	45		Mecha P.C.board calking assembly		95	AZN1833	Capstan holder
	46	AZN1319	R reel assembly		96	AZN1834	Capstan holder
	47	AZN1320	F reel assembly		97		Holder
	48	AZN1321	Reverse arm calking assembly		200	AZB1084	Nut
	49		FR lever assembly		201	AZB1085	E ring
	50	AZN1975	PLAY lever calking assembly		202	AZB1086	D screw
					203	AZB1121	P washer
					204	AZB1087	N washer

2.1 OVER ALL SCHEMATIC DIAGRAM





1. RESISTORS:
Indicated in Ω , $\frac{1}{2}W$, $\frac{1}{4}W$, $\pm 5\%$ tolerance unless otherwise noted k: k Ω , A
M: M Ω , (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$ (M): $\pm 20\%$ tolerance

2. CAPACITORS:
Indicated in capacity (μF)/voltage (V) unless otherwise noted p: pF
Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT:
Signal voltage at (33 W + 33 W 8 Ω) output (1kHz)
DC voltage (V) at no input signal
Value in () is DC voltage at rated power.
mA: DC current at no input signal

4. OTHERS:
Signal route.
Adjusting point.
The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

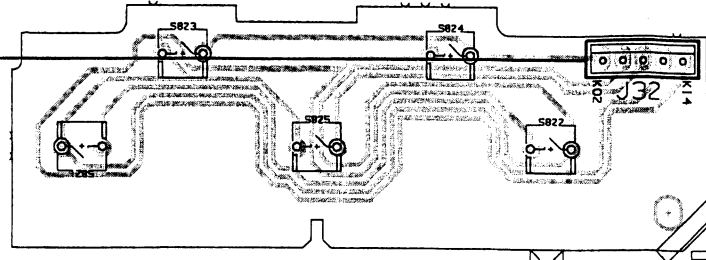
SWITCHES:

- DECK-1 SW assembly
- S811 1FWD
 - S812 1REV
 - S813 1FF
 - S814 1REW
 - S815 1STOP
- DECK-2 SW assembly
- S821 2FWD
 - S822 2REV
 - S823 2FF
 - S824 2REW
 - S825 2STOP
- DECK CENTER assembly
- S848 DOLBY OFF-ON
 - S849 REVERSE MODE
 - S853 COPY
 - S861 DECK-2 REC
 - S862 HI-SPEED COPY
 - S871 DECK-2 MUTE
 - S872 A.S.E.S
 - S875 DECK-2 PAUSE

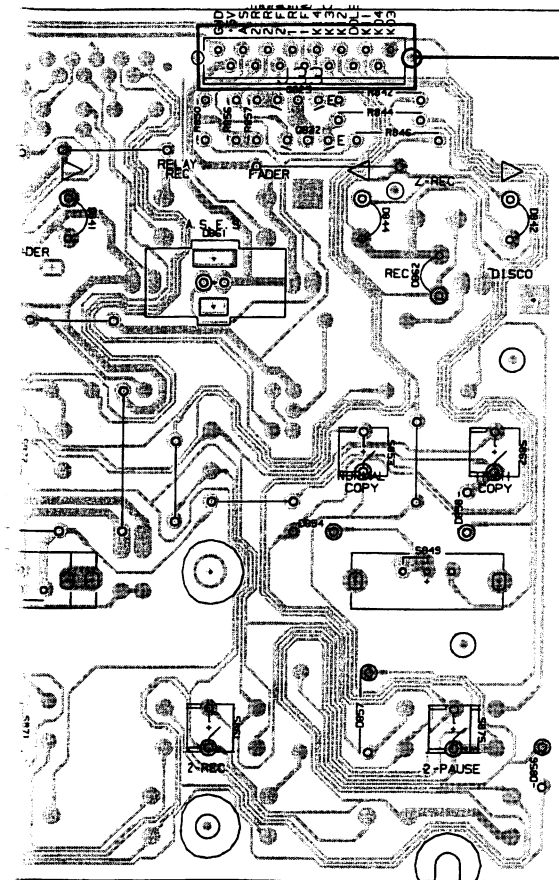
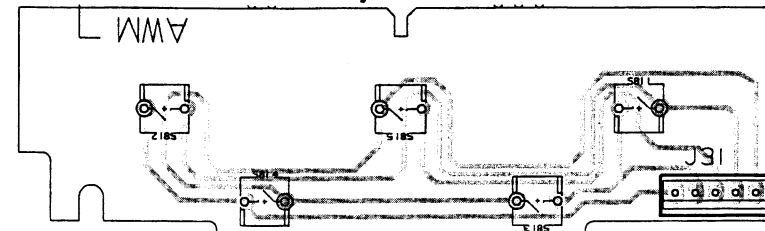
- AMP, GEQ CTRL assembly
- S701 CD
 - S702 PHONO
 - S703 TUNER
 - S704 TAPE
 - S705 VIDEO
 - S707 POWER

The underline indicates the switch position

DECK-1 SW assembly



DECK-2 SW assembly



TER assembly

To AF assembly CN17
(To page 33)

To AF assembly J45
(To page 34)

VR801-VR803

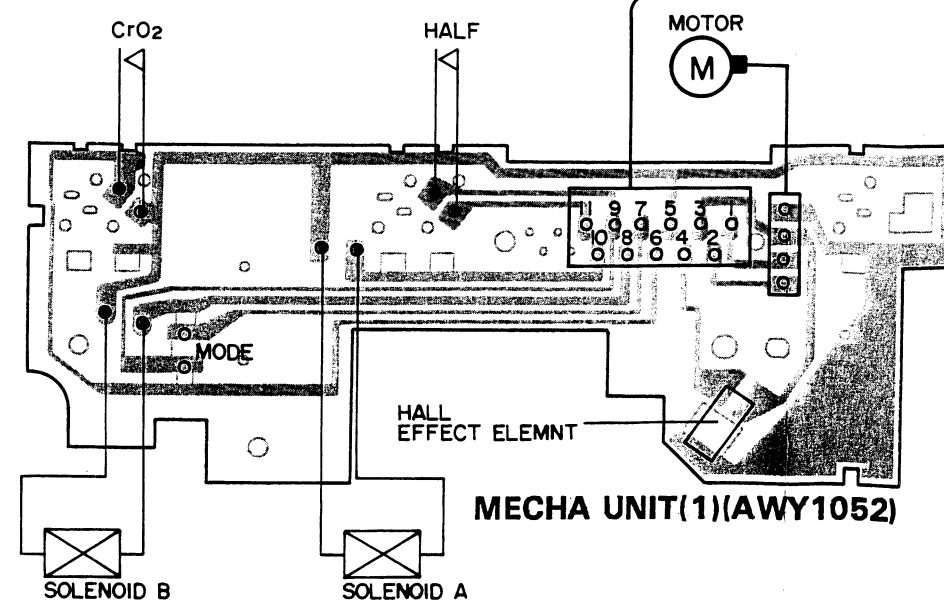
Q802 Q808 Q804 Q812 Q806 Q814
Q801 Q810

IC802

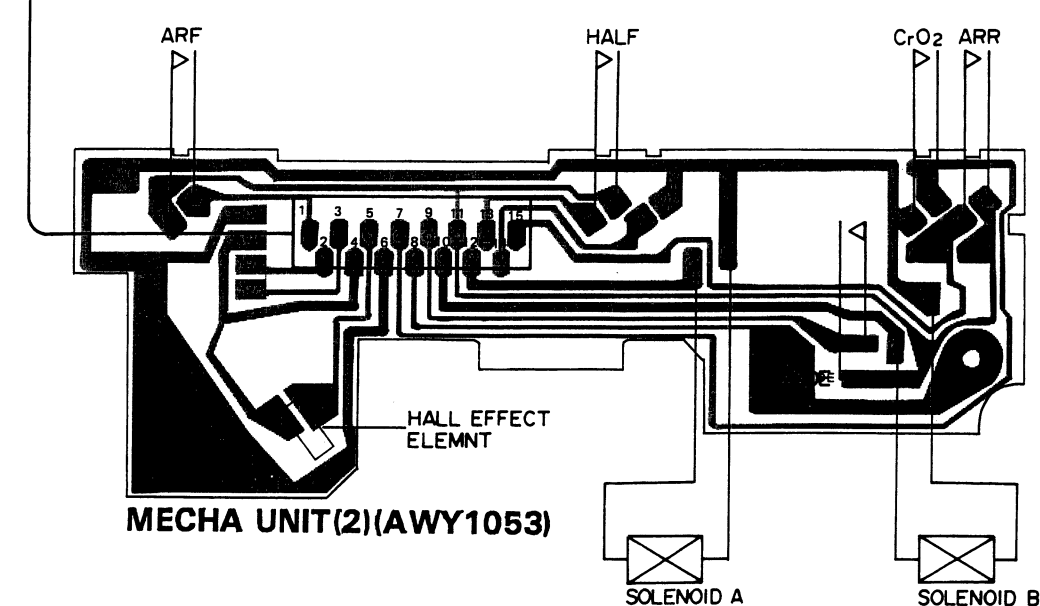
DECK CTRL assembly (AWZ2635)

IC801

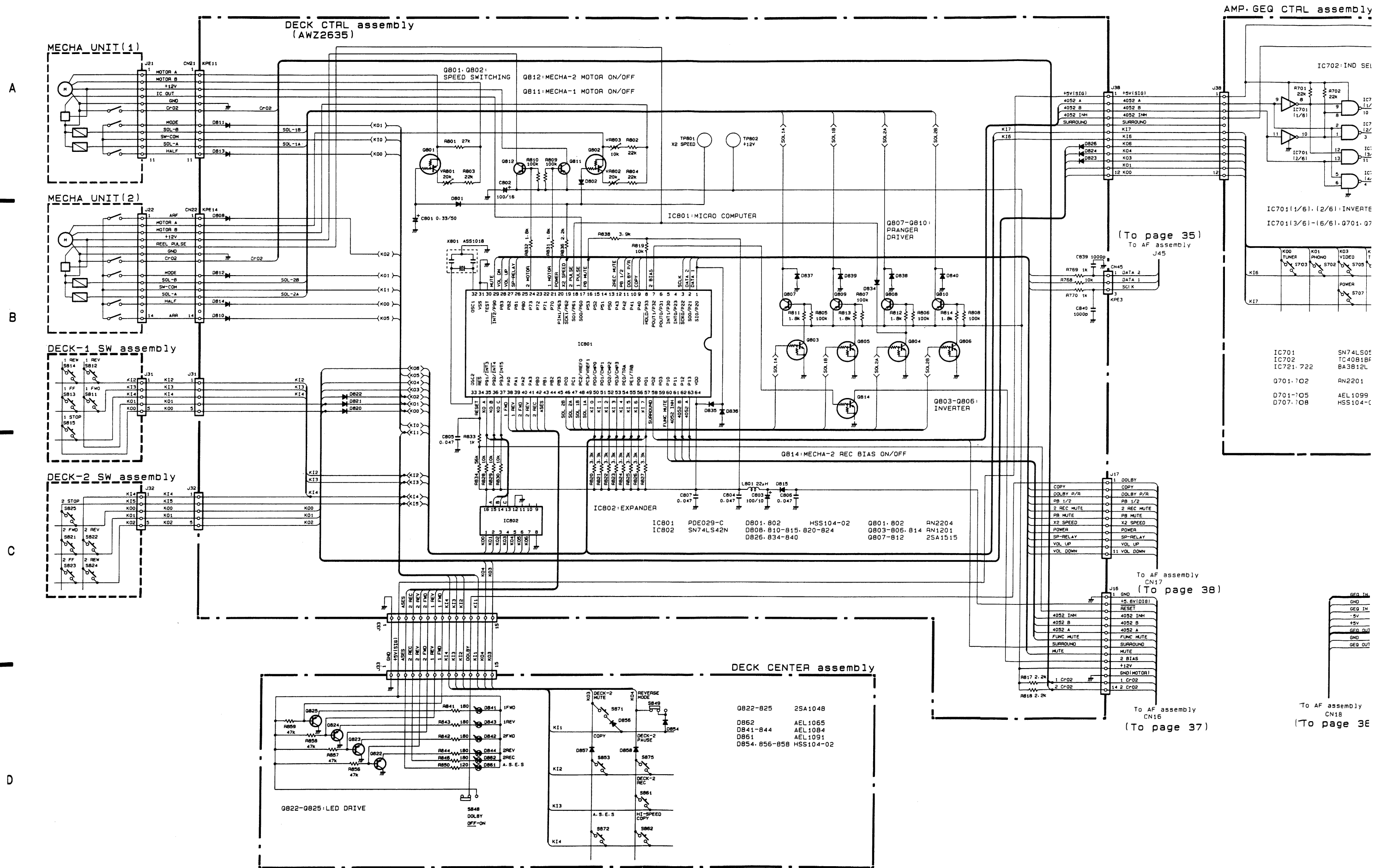
Q807 Q809 Q811
Q803 Q805



MECHA UNIT(1)(AWY1052)



MECHA UNIT(2)(AWY1053)





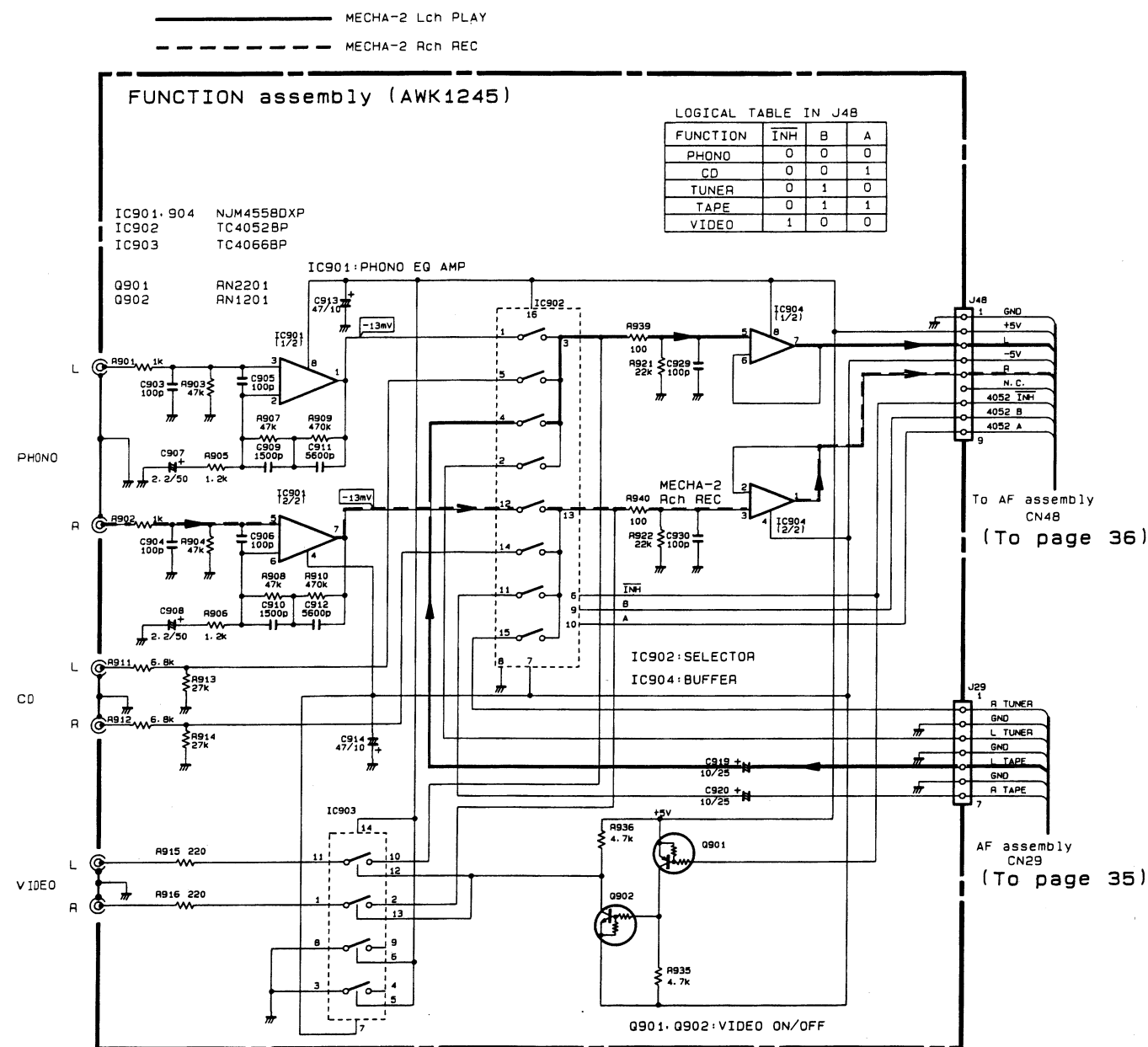
2.3 FUNCTION assembly (AWK1245)

A

B

C

D



NOTE

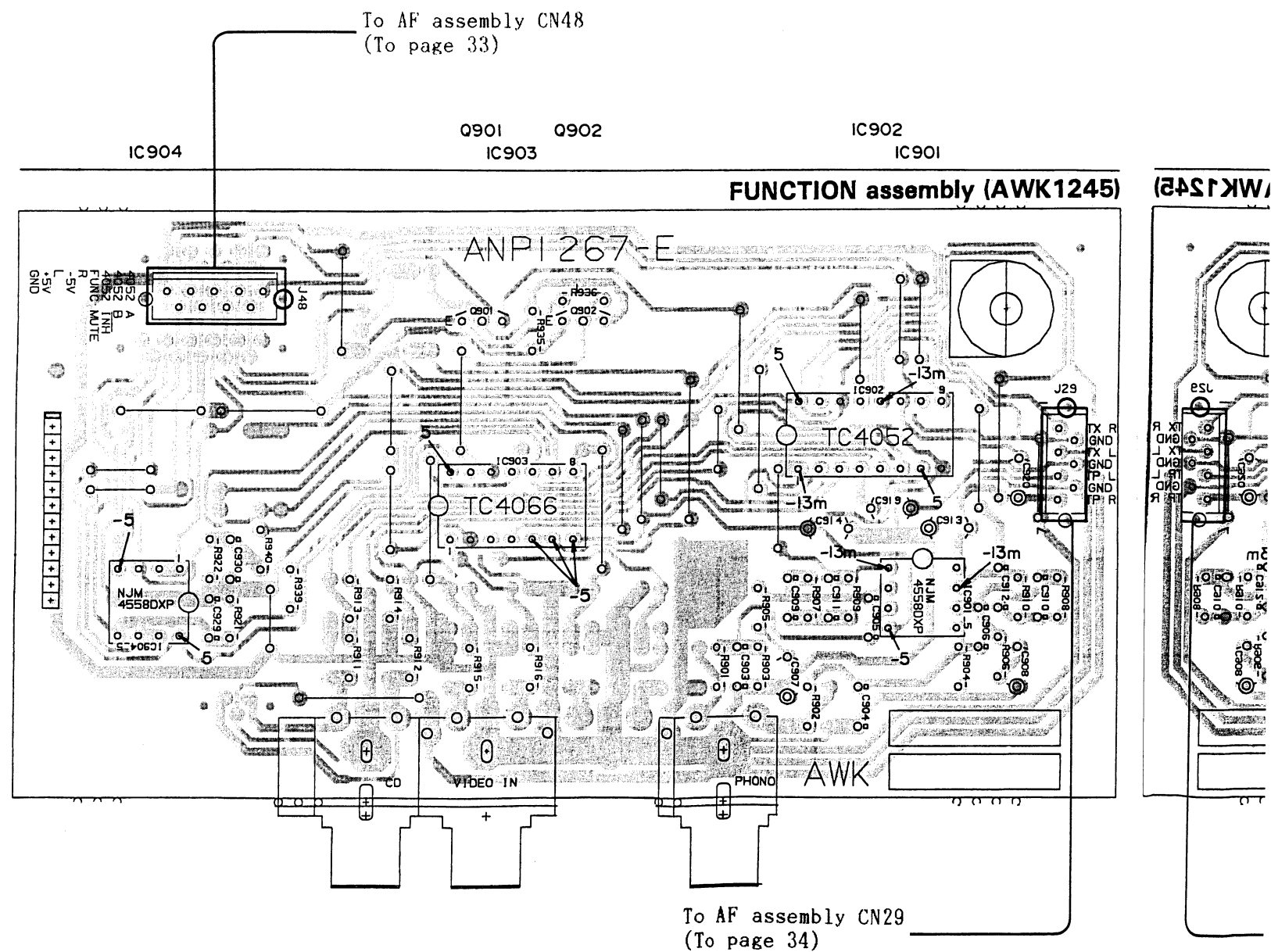
1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ⊕ (double circles) shows negative terminal.
4. The diode terminal marked with ⊕ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.



- NOTE
1. This P.C.B. connection diagram is viewed from the parts mounted side.
 2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504		Transistor
Q215		Radiator type transistor
Q203		Diode
R237		Resistor
C513		Capacitor (Polarity)
C518		Capacitor (Non-polarity)

Others

P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ⊕ (double circles) shows negative terminal.
4. The diode terminal marked with ⊕ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

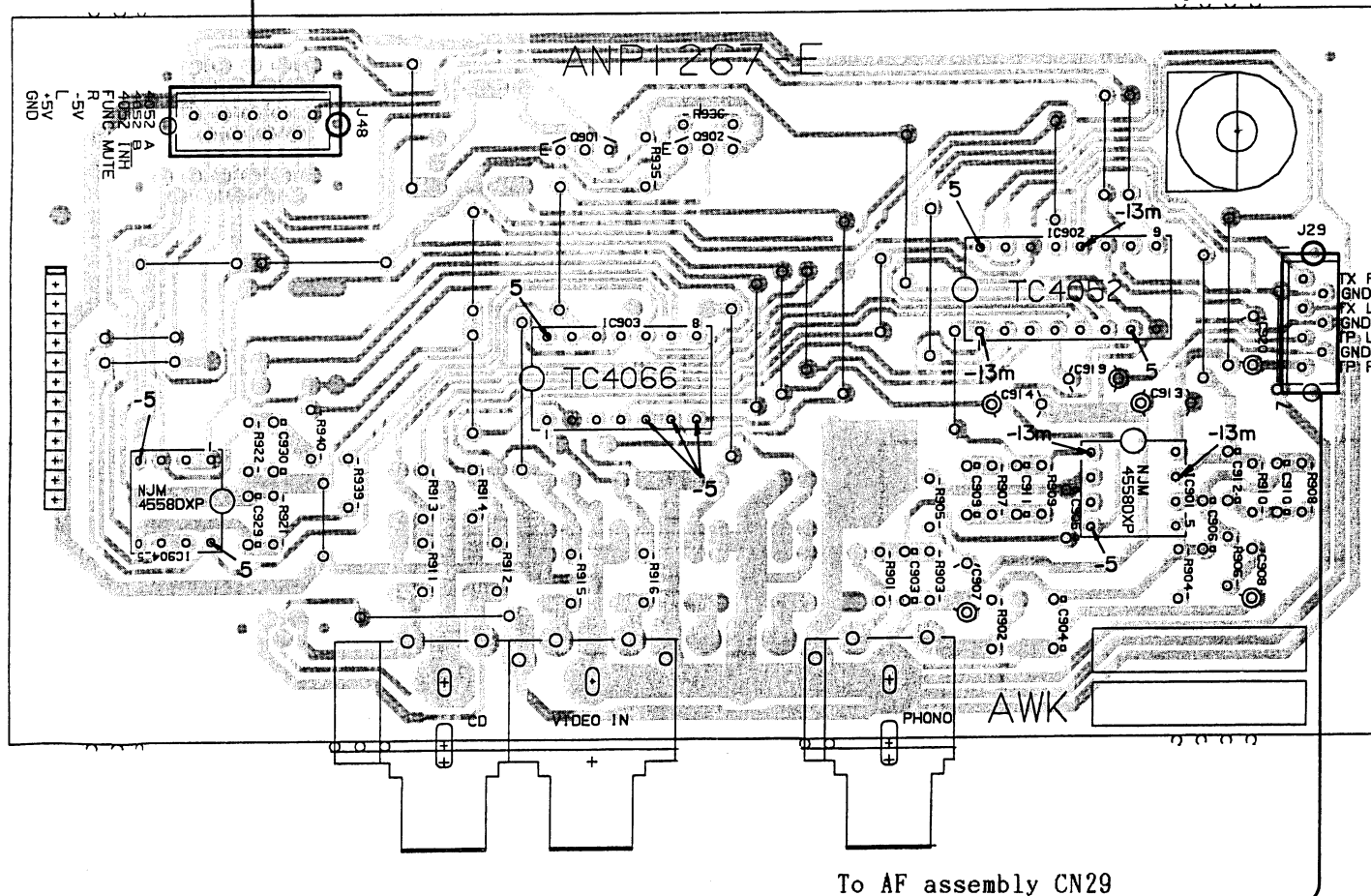
To AF assembly CN48
(To page 33)

IC904

Q901 Q902
IC903

IC902
IC901

FUNCTION assembly (AWK1245)



To AF assembly CN29
(To page 34)

NOTE:
This picture shows the foil side of the printed circuit.

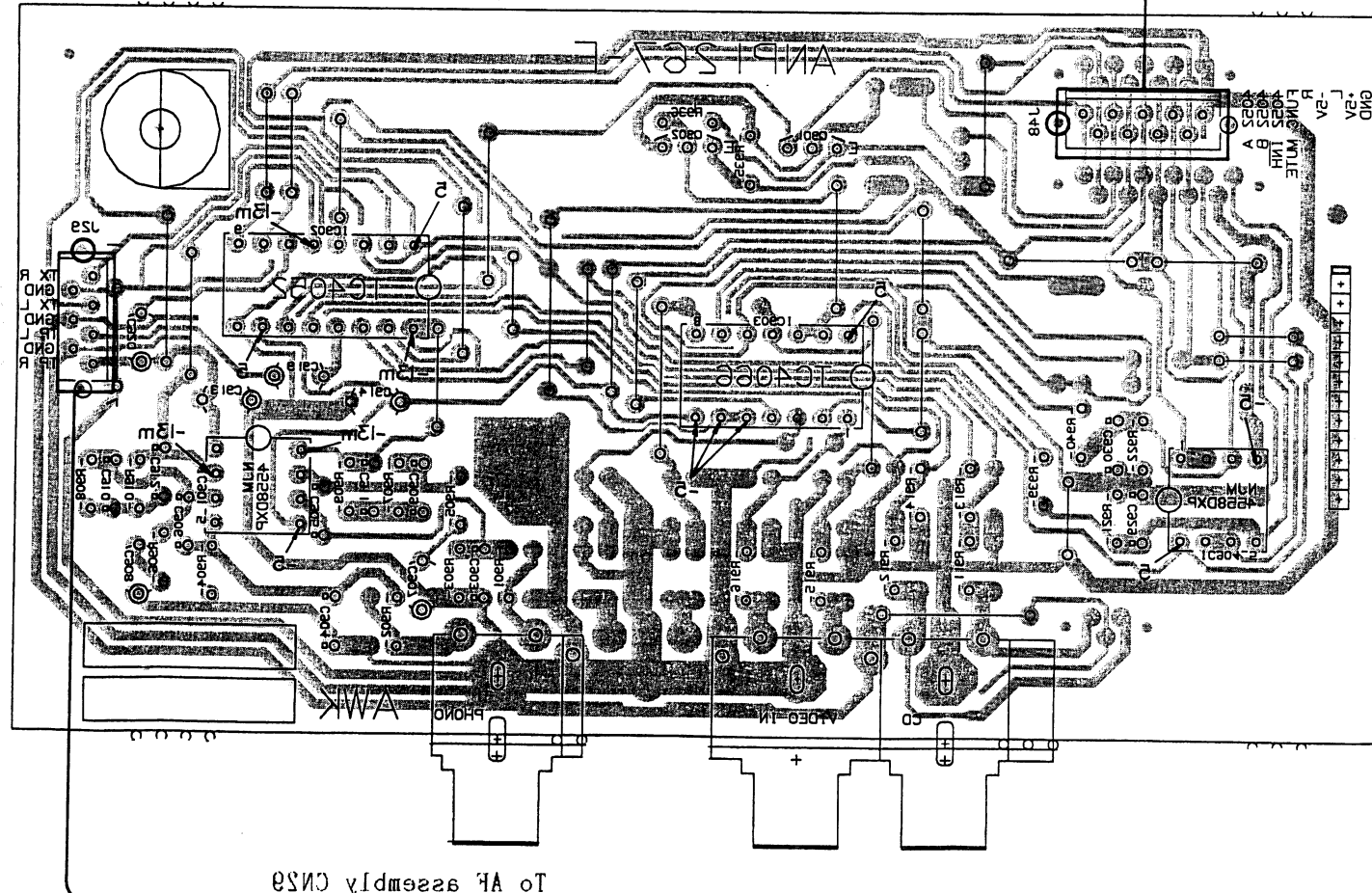
To AF assembly CN48
(To page 33)

IC901
IC902

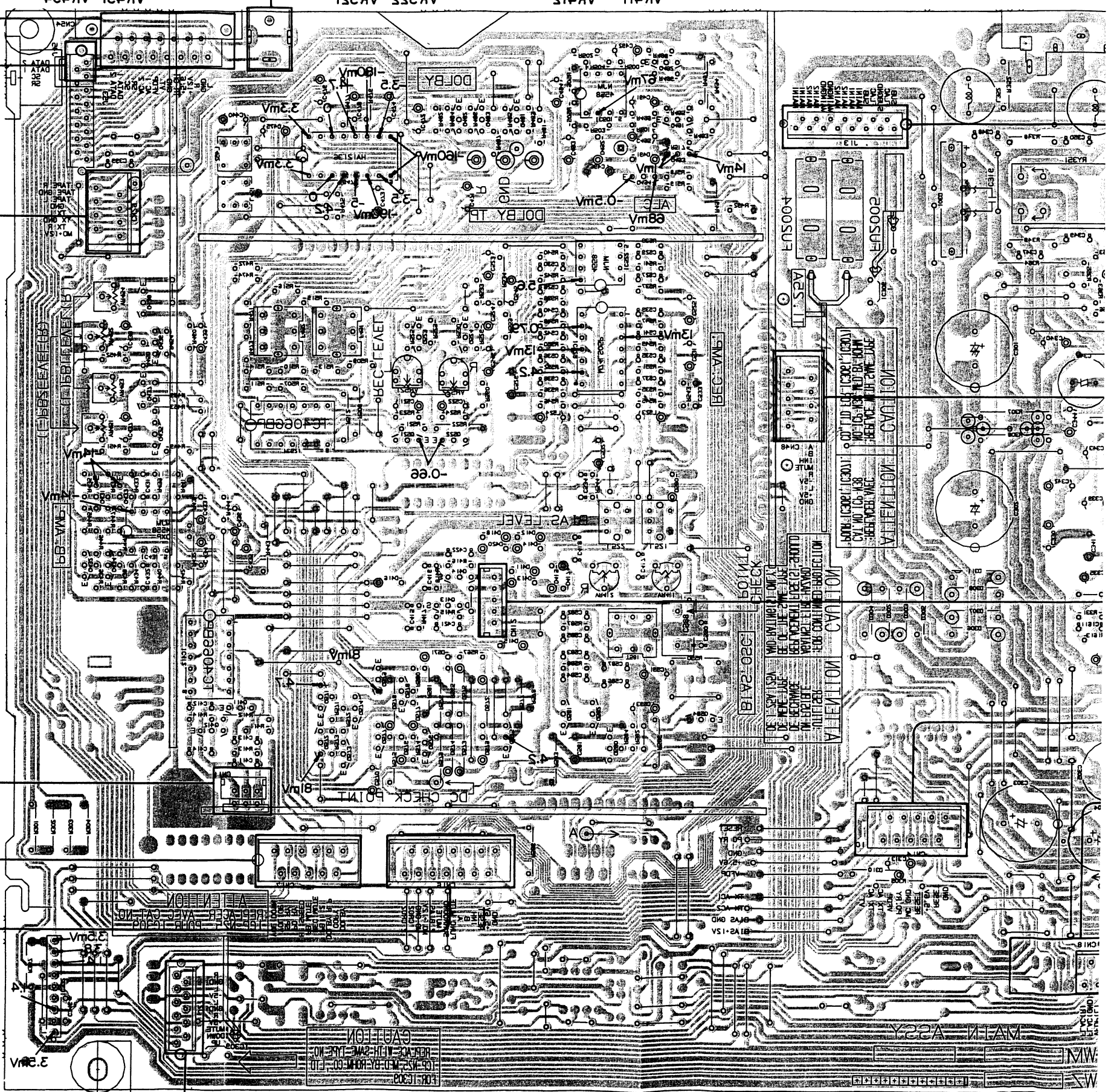
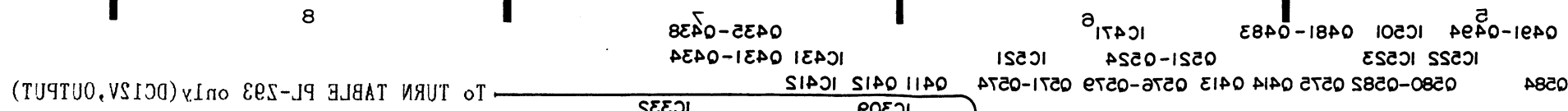
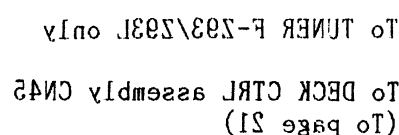
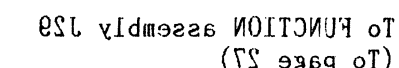
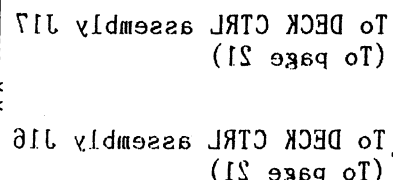
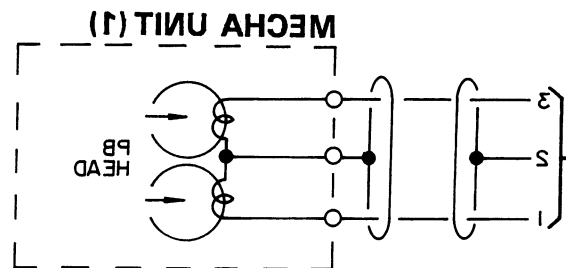
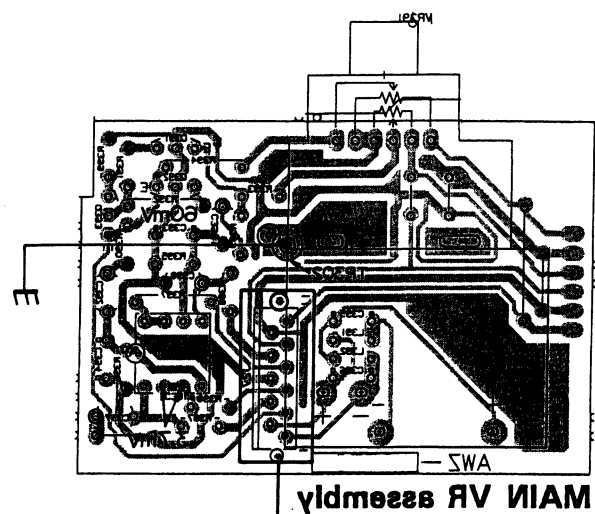
Q901 Q902
IC903

IC904

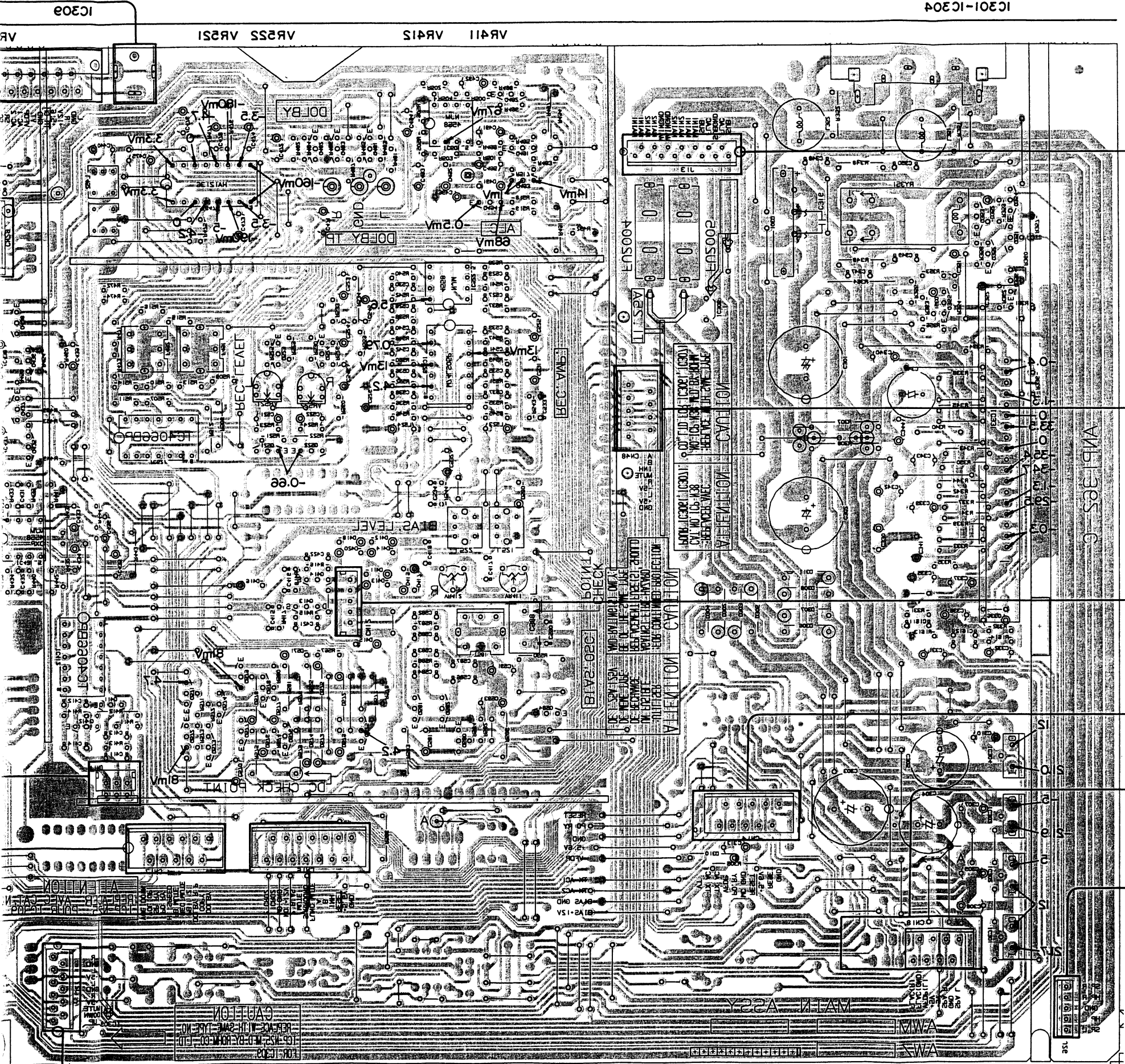
FUNCTION assembly (AWK1245)



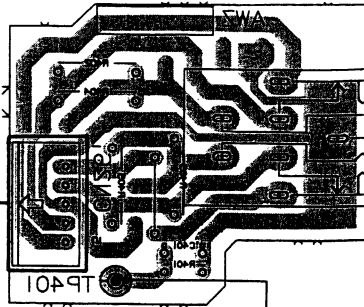
To AF assembly CN29
(To page 34)



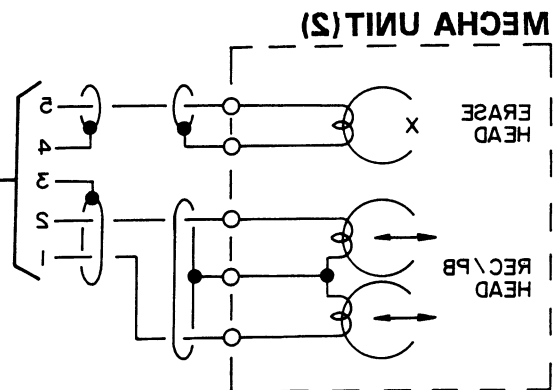
IC301-IC304
IC331
0321-0326
IC306
041-0434 IC201 0481-0483
0280-0285 0215 0216-0219 0221-0224 0411 0415 IC415
IC431
IC251-0254
IC253
VR411 VR415
VR255 VR251
IC303



AF assembly (AW25827)



(To page 18)
To AMP GEO CTRL assembly 118
(To page 40)
To POWER SUPPLY assembly 114



(To page 23)
To FUNCTION assembly 148

(To page 41)
To TRANS CONNECT assembly 113

A
B
C
D

2.4 AF (AWZ2627), MAIN VR and HEAD PHONE assembly

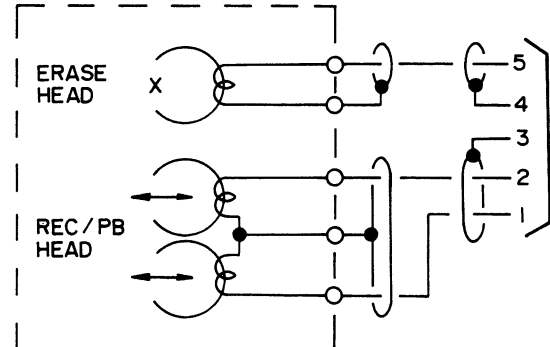
A

To TRANS CONNECT assembly J13
(To page 41)

B

To FUNCTION assembly J48
(To page 27)

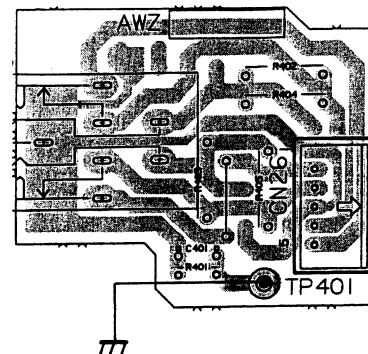
MECHA UNIT(2)



C

To POWER SUPPLY assembly J14
(To page 40)

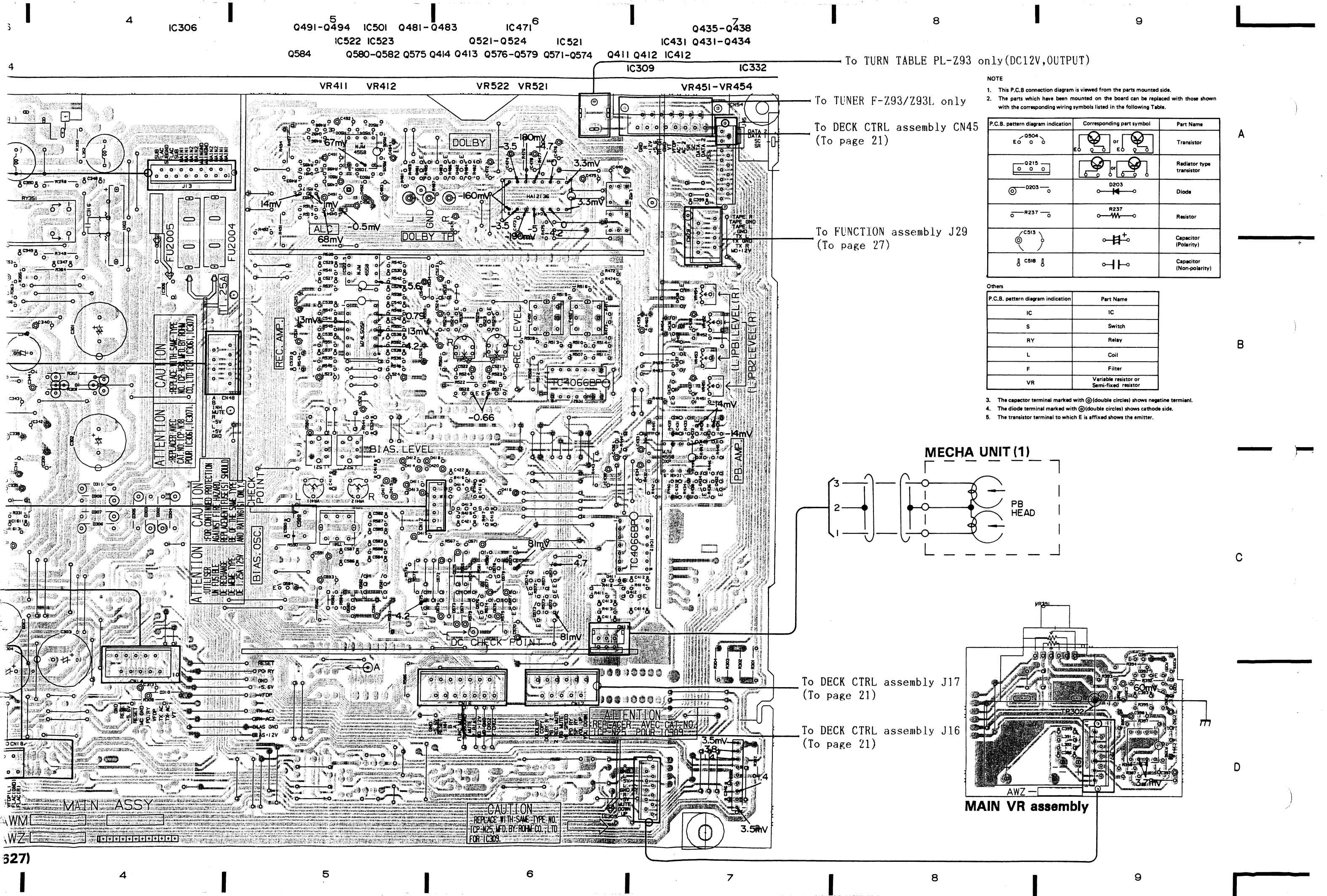
HEAD PHONE assembly



D

To AMP GEQ CTRL assembly J18
(To page 19)

AF assembly (AWZ2627)



A

To FUNCTION assembly
J48
(To page 26)

F-293/F-293L ONLY
To TUNER
CN54

To DECK CTRL assembly
CN45
(To page 24)

AF assembly (AWZ2627)

MECHA-2 Lch PLAY
MECHA-2 Rch REC
MECHA-1 Lch PLAY

To
FUNCTION assembly
J29
(To page 26)

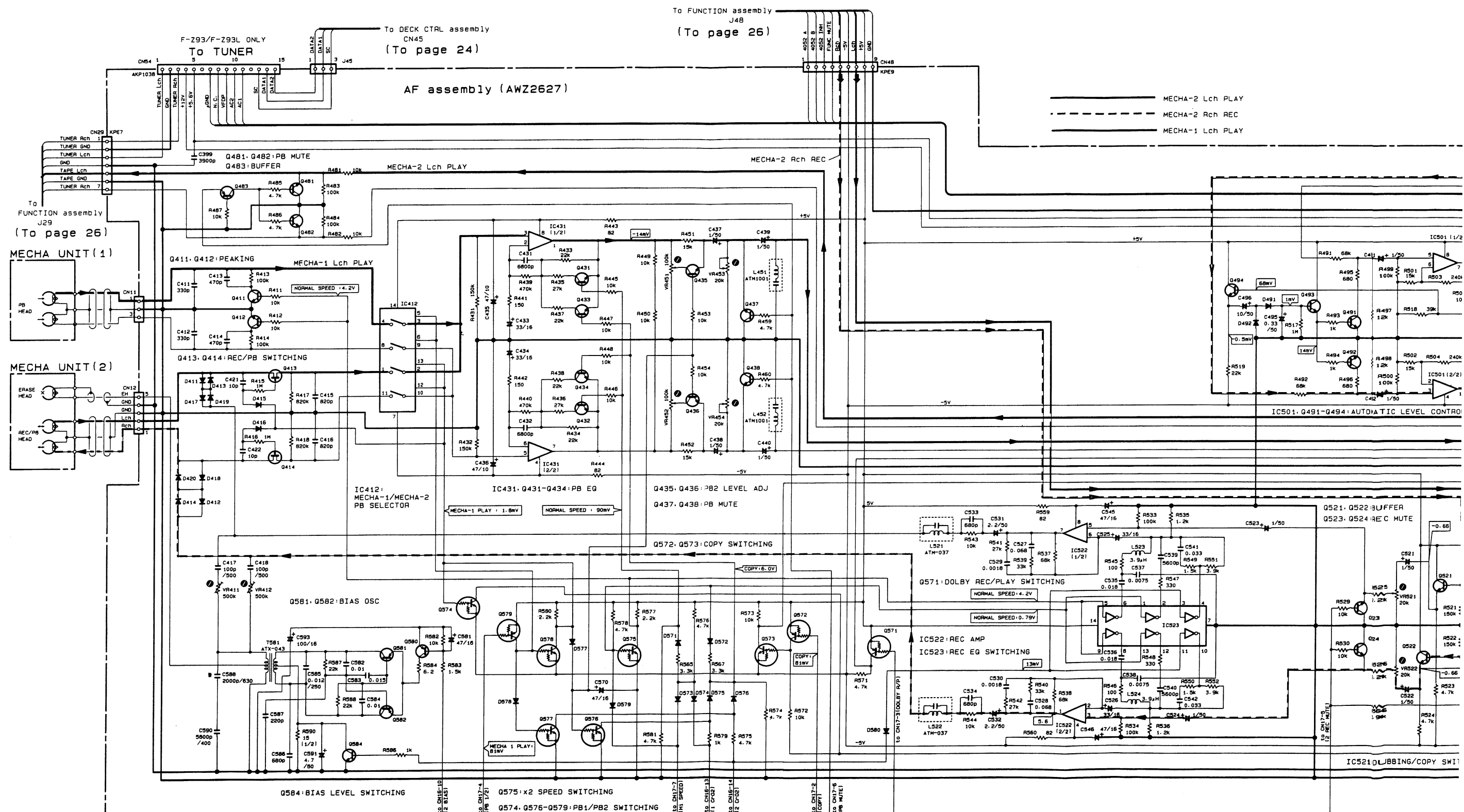
MECHA UNIT (1)

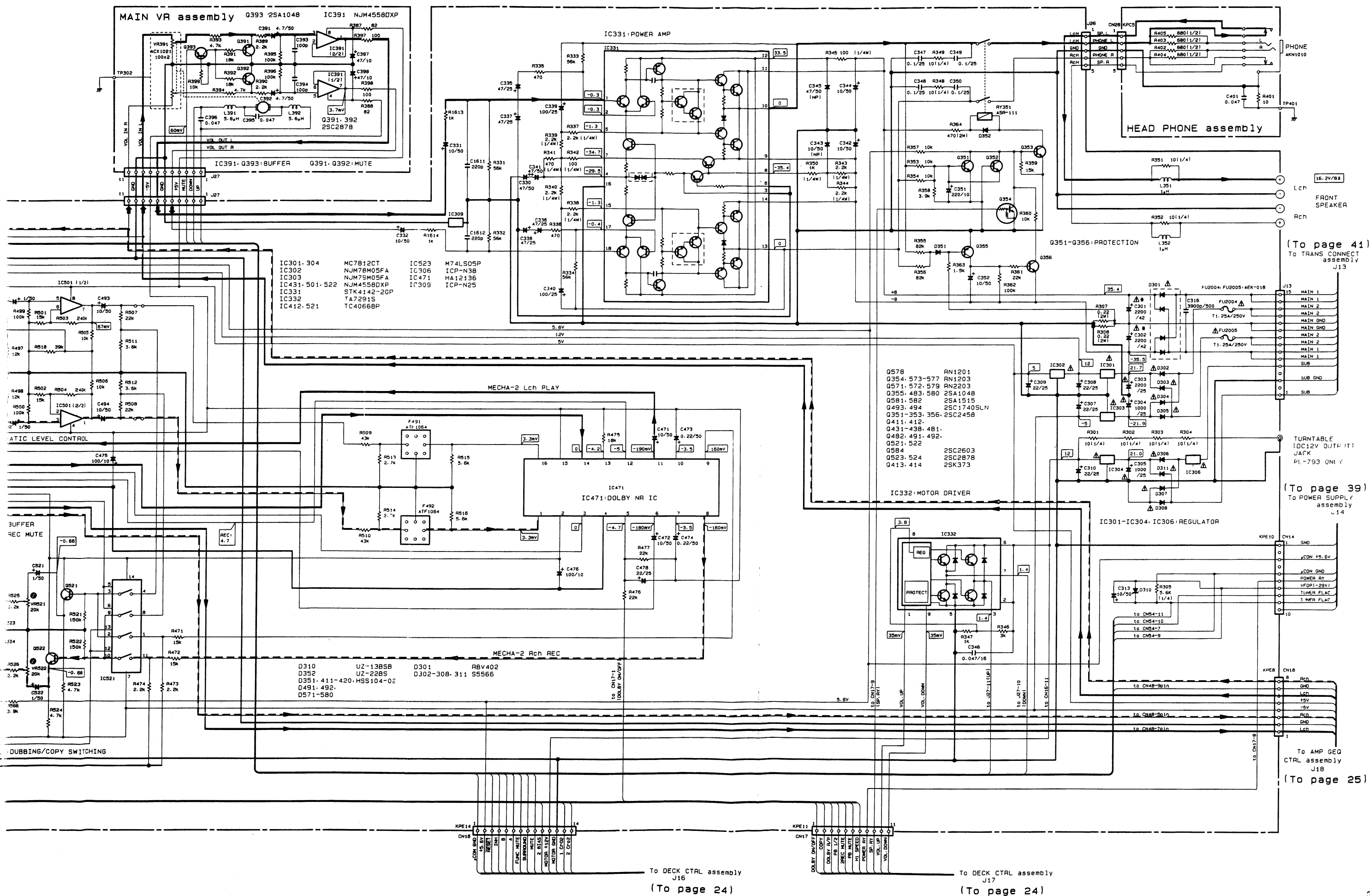
MECHA UNIT (2)

B

C

D





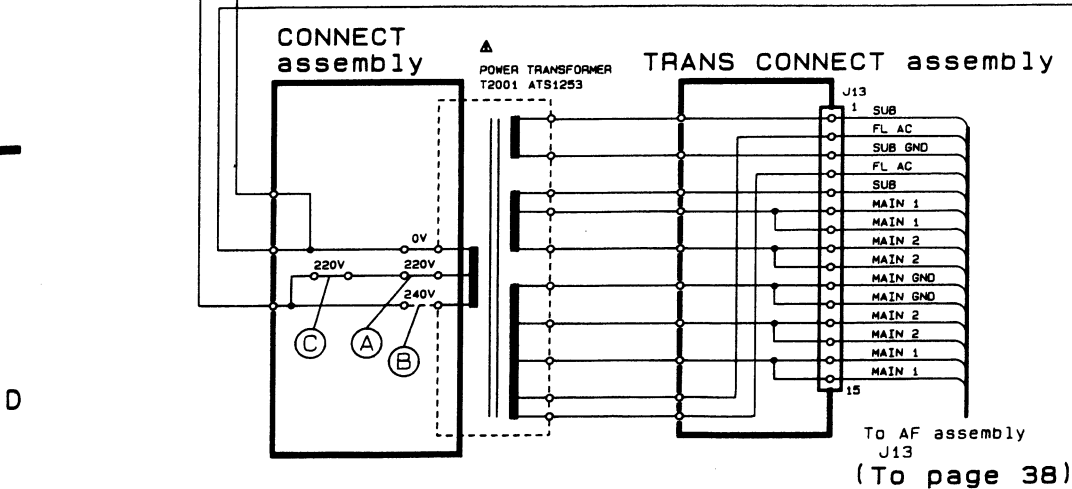
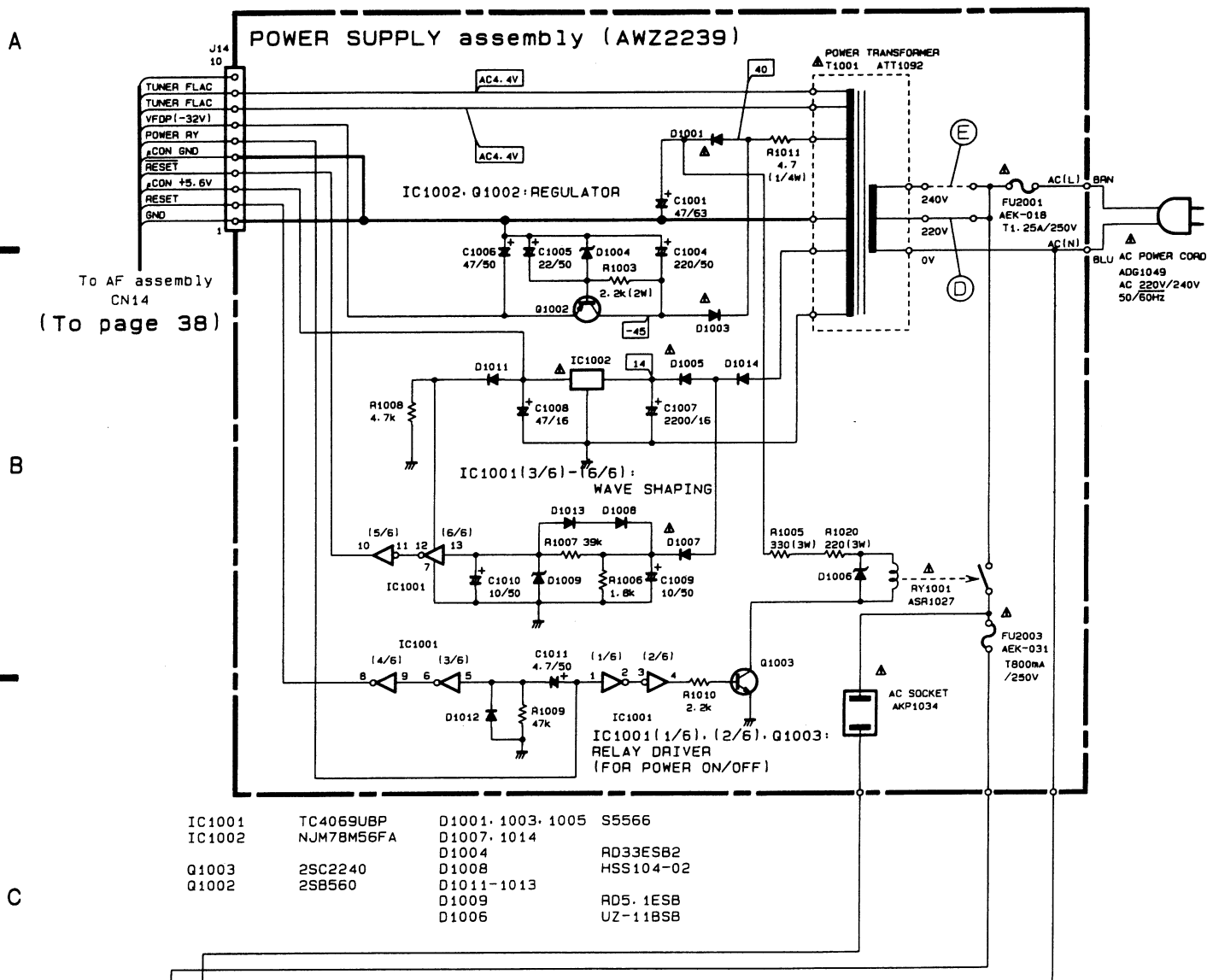
A

B

C

D

2.5 POWER SUPPLY (AWZ2239), TRANS CONNECT and CONNECT assembly



Line Voltage Selection

Line voltage can be changed with the following steps.

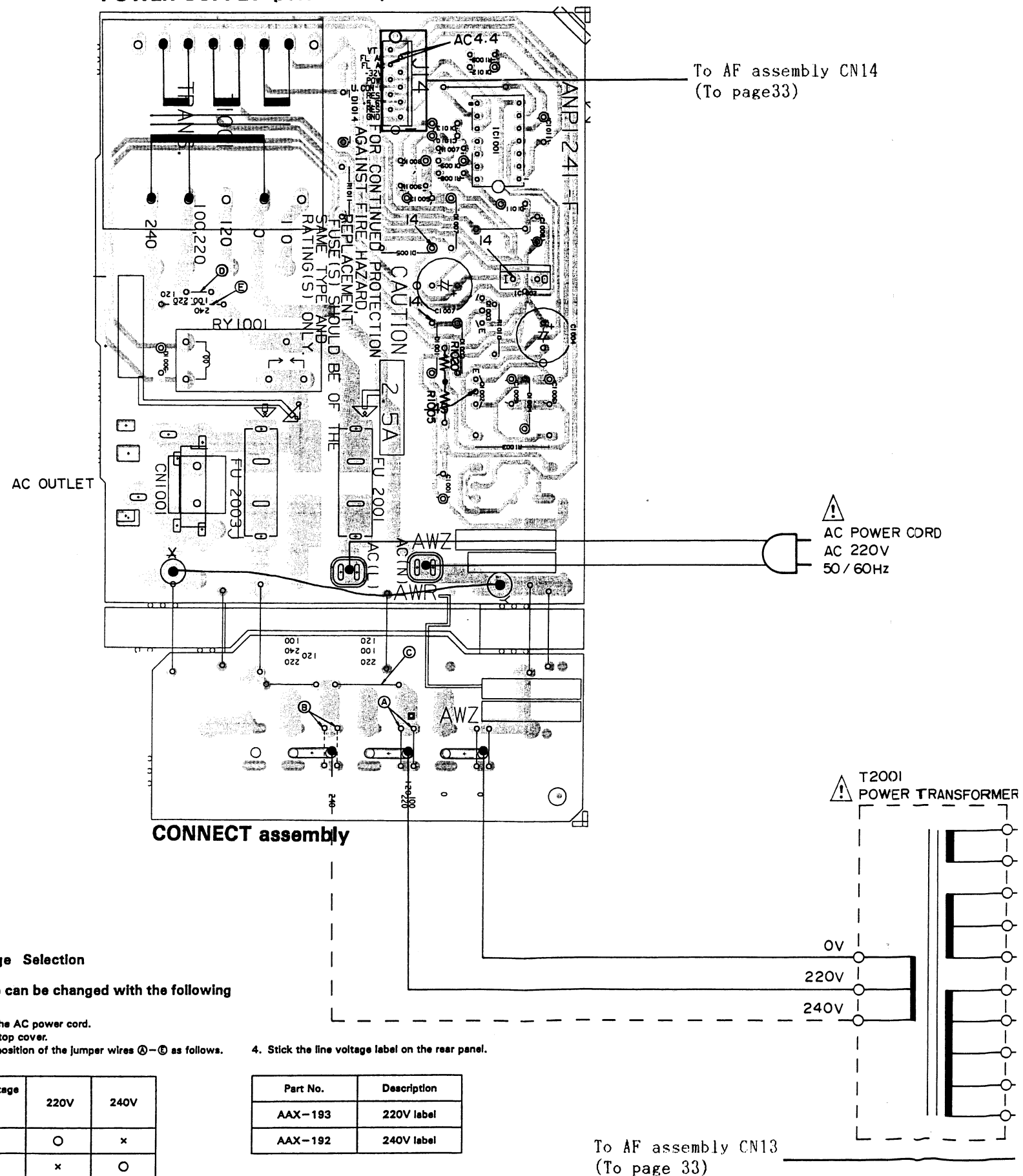
1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the position of the Jumper wires (A)-(C) as follows.
4. Stick the line voltage label on the rear panel.

Voltage	220V	240V
Jumper wires		
(A)	○	×
(B)	×	○
(C)	○	×
(D)	○	×
(E)	×	○

○: Be needed
 ×: Be needless

Part No.	Description
AAX-193	220V label
AAX-192	240V label

POWER SUPPLY (AWZ2239)



NOTE

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarity)
		Capacitor (Non-polarity)

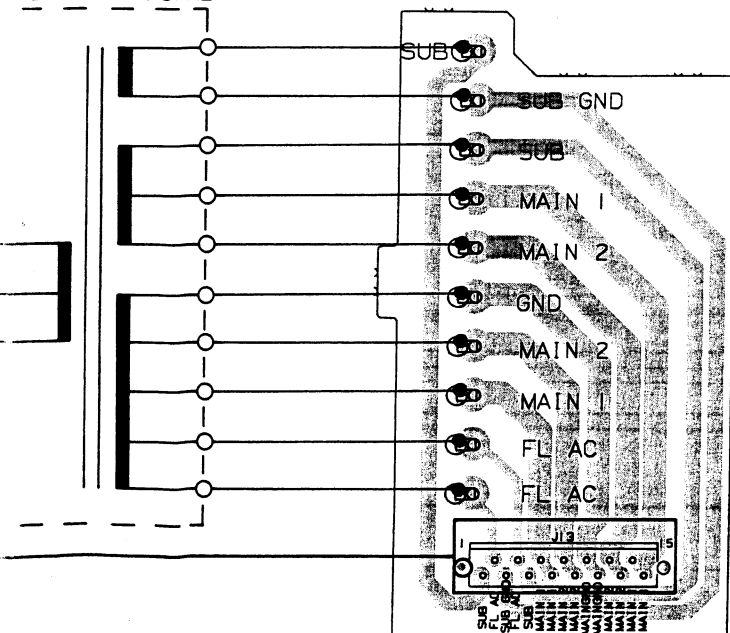
Others

P.C.B. pattern diagram indication	Part Name
	IC
	Switch
	Relay
	Coil
	Filter
	Variable resistor or Semi-fixed resistor

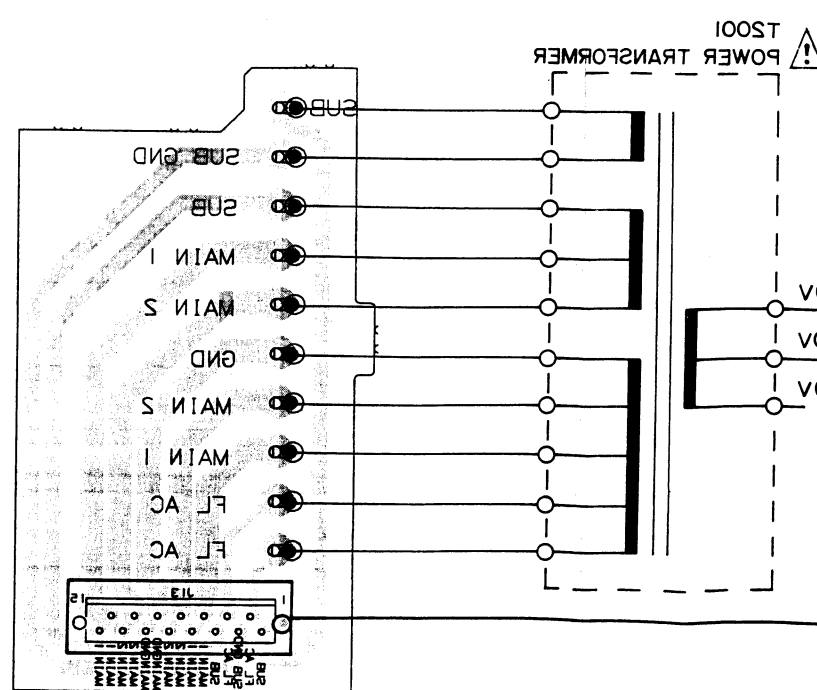
3. The capacitor terminal marked with ⊕ (double circles) shows negative terminal.
4. The diode terminal marked with ⊕ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

ER CORD
/
Z

001
WER TRANSFORMER

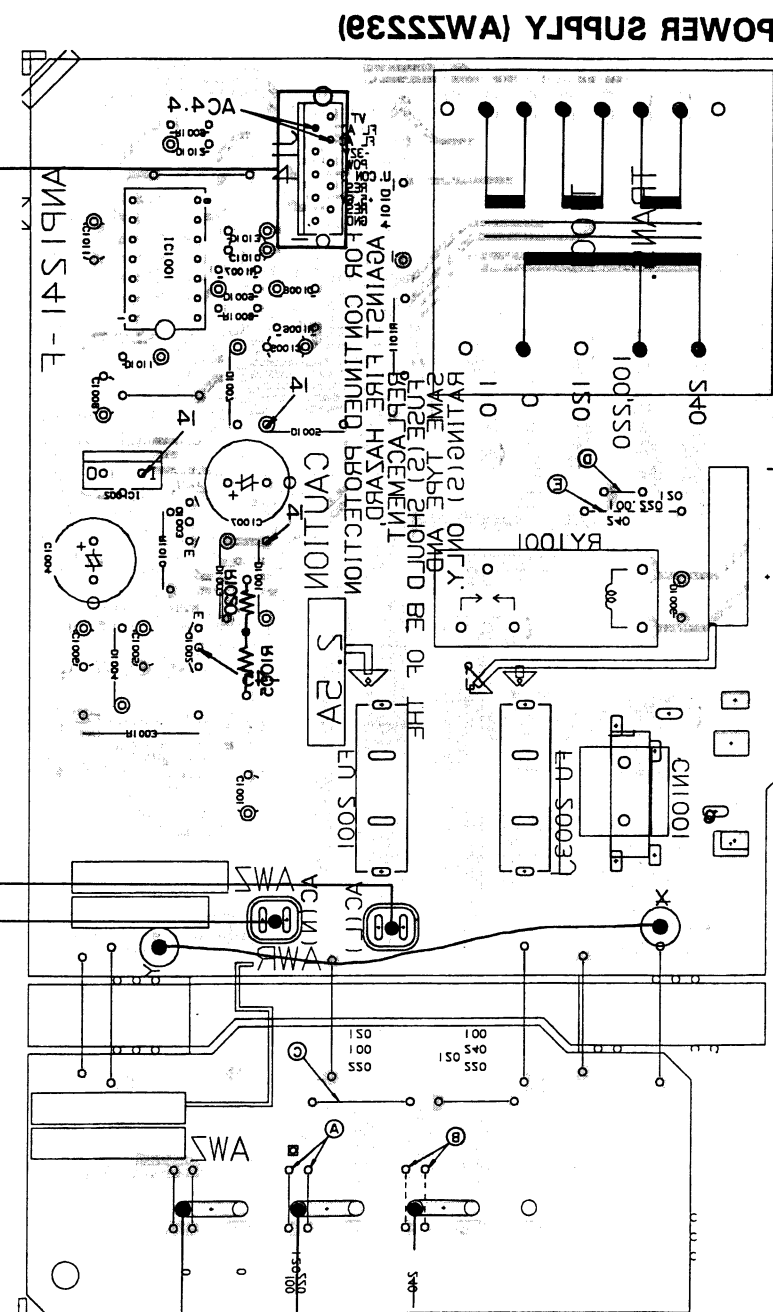
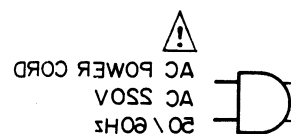


TRANS CONNECT assembly yldmæss TCEINOC 2IART



81ND vldmæss 2A OT
(To page 33)

(To page 33)
(To AF assembly 0M14)



CONNECT assembly

NOTE:

This picture shows the foil side of the printed circuit.

3. P.C.B's PARTS LIST

NOTES:

- Parts without part number cannot be supplied.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω	56×10^1	561.....	RD1/4PS	5 6 1 J
47k Ω	47×10^3	473.....	RD1/4PS	4 7 3 J
0.5 Ω	0R5.....		RN2H	0 5 K
1 Ω	010.....		RS1P	0 1 0 K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω	562×10^1	5621.....	RN1/4SR	5 6 2 1 F
----------------	-------------------	-----------	---------	-----------

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
FUNCTION assembly (AWK1245)					IC309	IC PROTECTOR	ICP-N25
SEMICONDUCTOR					IC331	AUDIO IC	STK4142-2GP
	IC901	OP-AMP IC	NJM4558DXP		IC332	MECHANISM DRIVER	TA7291S
	IC902	LOGIC IC	TC4052BP			IC	
	IC903	LOGIC IC	TC4066BP		IC412	LOGIC IC	TC4066BP
	IC904	OP-AMP IC	NJM4558DXP		IC431	OP-AMP IC	NJM4558DXP
					IC471	DOLBY-B IC	HA12136
	Q901	TRANSISTOR	RN2201		IC501	OP-AMP IC	NJM4558DXP
	Q902	TRANSISTOR	RN1201		IC521	LOGIC IC	TC4066BP
CAPACITORS					IC522	OP-AMP IC	NJM4558DXP
	C903-906	CERAMIC CAPACITOR	CCCSL101J50		IC523	LOGIC IC	M74LS05P
	C907,908	ELECTR.CAPACITOR	CEAS2R2M50		Q351-353	TRANSISTOR	2SC2458
	C909,910	CERAMIC CAPACITOR	CKCYB152K50		Q354	TRANSISTOR	RN203
	C911,912	CERAMIC CAPACITOR	CKCYB562K50		Q355	TRANSISTOR	2SA1048
					Q356	TRANSISTOR	2SC2458
	C913, 914	ELECTR.CAPACITOR	CEAS470M10		Q411,412	TRANSISTOR	2SC2458
	C919, 920	ELECTR.CAPACITOR	CEAS100M25				
	C929, 930	CERAMIC CAPACITOR	CCCSL101J50		Q413,414	N-FET	2SI373
RESISTORS					Q431-438	TRANSISTOR	2SC2458
	All resistors		RD1/8PM□□□□		Q481,482	TRANSISTOR	2SC2458
OTHERS					Q483	TRANSISTOR	2SA1048
	JACK-4P		AKB1009		Q491,492	TRANSISTOR	2SC2458
	(VIDEO,CD)						
	JACK 2-P (PHONO)		AKB1088		Q493,494	TRANSISTOR	2SC1740SLN
					Q521,522	TRANSISTOR	2SC2458
					Q523,524	TRANSISTOR	2SC2878
					Q571,572	TRANSISTOR	RN203
					Q573-577	TRANSISTOR	RN203
AF ASSY (AWZ2627)							
SEMICONDUCTORS					Q578	TRANSISTOR	RN201
	IC301	REGURATOR IC	MC7812CT		Q579	TRANSISTOR	RN203
	IC302	REGULATOR IC	NJM78M05FA		Q580	TRANSISTOR	2SA1048
	IC303	REGULATOR IC	NJM79M05FA		Q581,582	TRANSISTOR	2SA1515
	IC304	REGURATOR IC	MC7812CT		Q584	TRANSISTOR	2SC603
	IC306	IC PROTECTOR	ICP-N38				
					D301	DIODE	RB7402
					D302-308	DIODE	S556
					D310	ZENER DIODE	UZ-13BSB
					D311	DIODE	S556
					D351	DIODE	HS104-02

Mark	No.	Description	Parts No.
	D352	ZENER DIODE	UZ-22BS
	D411-420	DIODE	HSS104-02
	D491,492	DIODE	HSS104-02
	D571-580	DIODE	HSS104-02
RELAY			
	RY351	RELAY	ASR-111
COILS & TRANSFORMER			
	F491,492	DOLBY FILTER	ATF1064
	L351,352	COIL(1 μ H)	ATH-133
	L451,452	COIL	ATM1001
	L521,522	COIL	ATM-037
	L523,524	INDUCTOR (3.9 mH)	LTA392J
	T581	OSC TRANSFORMER	ATX-043
CAPACITORS			
	C1611,1612	CERAMIC CAPACITOR	CCCSL221J50
	C301,302	ELECTR.CAPACITOR (2200pF/42V)	ACH1109
	C303	ELECTR.CAPACITOR	CEAS222M25
	C304,305	ELECTR.CAPACITOR	CEAS102M25
	C307-310	ELECTR.CAPACITOR	CEAS220M25
	C313	ELECTR.CAPACITOR	CEAS100M50
	C316	CERAMIC CAPACITOR	CKDYB392K500
	C330	ELECTR.CAPACITOR	CEAS470M50
	C331,332	ELECTR.CAPACITOR	CEAS100M50
	C335	ELECTR.CAPACITOR	CEAS470M25
	C336	ELECTR.CAPACITOR	CEHAQ470M25
	C337,338	ELECTR.CAPACITOR	CEAS470M25
	C339,340	ELECTR.CAPACITOR	CEAS101M25
	C341	ELECTR.CAPACITOR	CEAS470M50
	C342	ELECTR.CAPACITOR	CEAS100M50
	C343	ELECTR.CAPACITOR	CEANP100M50
	C344	ELECTR.CAPACITOR	CEAS100M50
	C345	ELECTR.CAPACITOR	CEANP470M50
	C346	CERAMIC CAPACITOR	CKDYX473M16
	C347-350	CERAMIC CAPACITOR	CKCYX104M25
	C351	ELECTR.CAPACITOR	CEAS221M10
	C352	ELECTR.CAPACITOR	CEAS100M50
	C399	CERAMIC CAPACITOR	CKDYB392K50
	C411,412	CERAMIC CAPACITOR	CKMYB331K50
	C413,414	CERAMIC CAPACITOR	CKMYB471K50
	C415,416	CERAMIC CAPACITOR	CKMYB821K50
	C417,418	CERAMIC CAPACITOR	CCCSL101K500
	C421,422	CERAMIC CAPACITOR	CCMSL100D50
	C431,432	MYLOR FILM CAPACITOR	CQMA682J50
	C433,434	ELECTR.CAPACITOR	CEAS330M16
	C435,436	ELECTR.CAPACITOR	CEAS470M10
	C437,438	ELECTR.CAPACITOR	CEAS010M50
	C439,440	ELECTR.CAPACITOR	CEAS010M50
	C471,472	ELECTR.CAPACITOR	CEAS100M50
	C473,474	ELECTR.CAPACITOR	CEASR22M50

Mark	No.	Description	Parts No.
	C475,476	ELECTR.CAPACITOR	CEAS101M10
	C478	ELECTR.CAPACITOR	CEAS220M25
	C491,492	ELECTR.CAPACITOR	CEAS010M50
	C493,494	ELECTR.CAPACITOR	CEAS100M50
	C495	ELECTR.CAPACITOR	CEASR33M50
	C496	ELECTR.CAPACITOR	CEAS100M50
	C521-524	ELECTR.CAPACITOR	CEAS010M50
	C525,526	ELECTR.CAPACITOR	CEAS330M16
	C527,528	AUDIO FILM CAPACITOR	CFTXA683J50
	C529,530	CERAMIC CAPACITOR	CKCYB182K50
	C531,532	ELECTR.CAPACITOR	CEAS2R2M50
	C533,534	CERAMIC CAPACITOR	CKMYB681K50
	C535,536	MYLOR FILM CAPACITOR	CQMA183J50
	C537,538	MYLOR FILM CAPACITOR	CQMA752J50
	C539,540	CERAMIC CAPACITOR	CKCYB562K50
	C541,542	AUDIO FILM CAPACITOR	CFTXA333J50
	C545,546	ELECTR.CAPACITOR	CEAS470M16
	C570	ELECTR.CAPACITOR	CEAS470M16
	C581	ELECTR.CAPACITOR	CEAS470M16
	C582	MYLOR FILM CAPACITOR	CQMA103K50
	C583	MYLOR FILM CAPACITOR	CQMA153K50
	C584	MYLOR FILM CAPACITOR	CQMA103K50
	C585	MYLOR FILM CAPACITOR	CQMA123K250
	C586	CERAMIC CAPACITOR	CKMYB681K50
	C587	CERAMIC CAPACITOR	CKMYB221K50
	C588	CQPA (2000pF/630V)	ACE1020
	C590	MYLOR FILM CAPACITOR	CQMA562K400
	C591	ELECTR.CAPACITOR	CEAS4R7M50
	C593	ELECTR.CAPACITOR	CEAS101M16

RESISTORS

R301-304	CARBON FILM RESISTOR	RD1/4PM100J
R305	CARBON FILM RESISTOR	RD1/4PM562J
R307,308	METAL OXIDE RESISTOR	RS2LMFR2J
R337-340	CARBON FILM RESISTOR	RD1/4PM222J
R341	CARBON FILM RESISTOR	RD1/4PMFL471J
R342	CARBON FILM RESISTOR	RD1/4PMFL101J
R343,344	CARBON FILM RESISTOR	RD1/4PM222J
R345	CARBON FILM RESISTOR	RD1/4PMFL01J

Mark	No.	Description	Parts No.
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DECK CTRL assembly (AWZ2635)**SEMICONDUCTORS**

IC801			PDE029-C
IC802	LOGIC IC		SN74LS42N

Q801,802	TRANSISTOR		RN2204
Q803-806	TRANSISTOR		RN1201
Q807-812	TRANSISTOR		2SA1515
Q814	TRANSISTOR		RN1201

D801,802	DIODE		HSS104-02
D808	DIODE		HSS104-02
D810-815	DIODE		HSS104-02
D820-824	DIODE		HSS104-02
D826	DIODE		HSS104-02

D834-840	DIODE		HSS104-02
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COIL

L801	AXIAL INDUCTOR (22μH)		LAU220K
------	--------------------------	--	---------

CAPACITORS

C801	ELECTR.CAPACITOR		CEASR33M50
C802	ELECTR.CAPACITOR		CEAS101M16
C803	ELECTR.CAPACITOR		CEAS101M10
C804-807	CERAMIC CAPACITOR		CKCYF473Z50
C839,840	CERAMIC CAPACITOR		CKCYB102K50

RESISTORS

VR801,802	VR (20kΩ)		VRTM6H203
VR803	VR (10kΩ)		VRTM6H103
Other resistors			RD1/8PM□□□J

OTHERS

CN21	JUMPER CONNECTOR 11P		KPE11
CN22	JUMPER CONNECTOR 14P		KPE14
CN45	JUMPER CONNECTOR 3P		KPE3

X801	Ceramic resonator		ASS1018
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DECK-1 SW assembly**SWITCHES**

S811-815	SWITCH		ASG1034
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DECK-2 SW assembly**SWITCHES**

S821-825	SWITCH		ASG1034
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Mark	No.	Description	Parts No.
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AMP,GEQ CTRL assembly (AWZ2639)**SEMICONDUCTORS**

IC701	LOGIC IC		SN74LS05N
IC702	LOGIC IC		TC4081BP
IC721,722	AUDIO IC		BA3812L

Q701,702	TRANSISTOR		RN2201
----------	------------	--	--------

D701-705	LED(RED)		AEL1099
D707,708	DIODE		HSS104-02

SWITCHES

S701-705	SWITCH		ASG1034
S707	SWITCH		ASG1034

CAPACITORS

C721,722	CERAMIC CAPACITOR		CKCYB182K50
C723,724	CERAMIC CAPACITOR		CKCYX153M25
C725,726	CERAMIC CAPACITOR		CKCYB391K50
C727,728	CERAMIC CAPACITOR		CKCYB682K50
C729,730	CERAMIC CAPACITOR		CKCYB392K50

C731,732	CERAMIC CAPACITOR		CKCYX683M16
C733,734	CERAMIC CAPACITOR		CKCYX183M25
C735,736	ELECTR.CAPACITOR		CEJAR15M50
C737	CERAMIC CAPACITOR		CKCYX393M25
C738	CERAMIC CAPACITOR		CKDYX393M25
C739,740	ELECTR.CAPACITOR		CEJAR68M50

C741	ELECTR.CAPACITOR		CEJA100N25
C742	ELECTR.CAPACITOR		CEAS100M25
C743,744	CERAMIC CAPACITOR		CCMSL101J50
C745,746	CERAMIC CAPACITOR		CKCYB331K50
C747,748	ELECTR.CAPACITOR		CEAS100M25
C749-750	ELECTR.CAPACITOR		CEAS101M10

RESISTORS

VR721-730	VR (30kΩ)		ACU1034
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Other resistors			RD1/8PM□□□J
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POWER SUPPLY assembly (AWZ2239)**SEMICONDUCTORS**

IC1001	LOGIC IC		TC4069UEP
IC1002	REGULATOR IC		NJM78M5FA

Q1002	TRANSISTOR		2SB560
Q1003	TRANSISTOR		2SC2240

D1001	DIODE		S5566
D1003	DIODE		S5566
D1004	ZENER DIODE		RD33ESB2
D1005	DIODE		S5566
D1006	ZENER DIODE		UZ-11BS1

D1007	DIODE		S5566
D1008	DIODE		HSS104-02
D1009	ZENER DIODE		RD5.1ESB

Mark	No.	Description	Parts No.
	R348,349	CARBON FILM RESISTOR	RD1/4PM100J
	R350	CARBON FILM RESISTOR	RD1/4PMFL102J
	R351,352	CARBON FILM RESISTOR	RD1/4PMFL100J
	R364	METAL OXIDE RESISTOR	RS2LMF471J
	R590	CARBON FILM RESISTOR	RD1/2PM150J
	VR411,412	VR (500k Ω)	VRTM6V504
	VR451,452	VR (100k Ω)	VRTM6H104
	VR453,454	VR (20k Ω)	VRTM6H203
	VR521,522	VR (22k Ω)	ACP1026
	Other resistors		RD1/8PM□□□J

OTHERS

	TERMINAL 4-P (SPEAKER)	AKE1012
	JACK (PL DC+12V)	AKN-203
	Socket 15-P (To TUNER)	AKP1038
CN14	JUMPER CONNECTOR 10P	KPE10
CN16	JUMPER CONNECTOR 14P	KPE14
CN17	JUMPER CONNECTOR 11P	KPE11
CN18	JUMPER CONNECTOR 8P	KPE8
CN29	JUMPER CONNECTOR 7P	KPE7
CN48	JUMPER CONNECTOR 9P	KPE9

HEAD PHONE assembly

CAPACITOR

C401	CERAMIC CAPACITOR	CKCYF473Z50
------	-------------------	-------------

RESISTORS

R401	CARBON FILM RESISTOR	RD1/8PM100J
R402-405	CARBON FILM RESISTOR	RD1/2PMF681J

OTHERS

	JACK (HEAD PHONE)	AKN1010
CN25	JUMPER CONNECTOR 5P	KPC5

Mark	No.	Description	Parts No.
		TRANS CONNECT assembly	
		No parts are supplied with the TRANS CONNECT assembly.	

MAIN VR assembly

SEMICONDUCTORS

IC391	OP-AMP IC	NJM4558DXP
Q391,392	TRANSISTOR	2SC2878
Q393	TRANSISTOR	2SA1048

COILS

L391,392	AXIAL INDUCTOR (5.6 μ H)	LAU5R6K
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CAPACITORS

C391,392	ELECTR.CAPACITOR	CEAS4R7M50
C393,394	CERAMIC CAPACITOR	CCMSL101J50
C395,396	CERAMIC CAPACITOR	CKCYF473Z50
C397,398	ELECTR.CAPACITOR	CEAS470M10

RESISTORS

VR391	VR (100k Ω × 2)	ACX1021
Other resistors		RD1/8PM□□□J

DECK CENTER assembly

SEMICONDUCTORS

Q822-825	TRANSISTOR	2SA1048
D841-844	LED	AEL1084
D854	DIODE	HSS104-02
D856-858	DIODE	HSS104-02
D861	LED	AEL1091
D862	LED (RED)	AEL1065

SWITCHES

S848,849	SWITCH	ASH1014
S853	SWITCH	ASG1034
S861,862	SWITCH	ASG1034
S871,872	SWITCH	ASG1034
S875	SWITCH	ASG1034

RESISTORS

All resistors		RD1/8PM□□□J
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Mark	No.	Description	Parts No.
	D1011-1013	DIODE	HSS104-02
	D1014	DIODE	S5566
RELAY			
⚠	RY1001	RELAY	ASR1027
TRANSFORMER			
⚠	T1001	POWER TRANSFORMER	ATT1092
CAPACITORS			
	C1001	ELECTR.CAPACITOR	CEAS470M63
	C1004	ELECTR.CAPACITOR	CEAS221M50
	C1005	ELECTR.CAPACITOR	CEHAQ220M50
	C1006	ELECTR.CAPACITOR	CEAS470M50
	C1007	ELECTR.CAPACITOR	CEAS222M16
	C1008	ELECTR.CAPACITOR	CEAS470M16
	C1009,1010	ELECTR.CAPACITOR	CEAS100M50
	C1011	ELECTR.CAPACITOR	CEAS4R7M50
RESISTORS			
	R1003	METAL OXIDE RESISTOR	RS2LMF222J
	R1005	METAL OXIDE RESISTOR	RS3PMF331J
	R1011	CARBON FILM RESISTOR	RD1/4PMFL4R7J
	R1020	METAL OXIDE RESISTOR	RS3PMF221J
	Other resistors		RD1/8PM□□□J
OTHERS			
⚠		AC SOCKET 1-P	AKP1034

CONNECT assembly

No parts are supplied with the CONNECT assembly.

4. ADJUSTMENTS

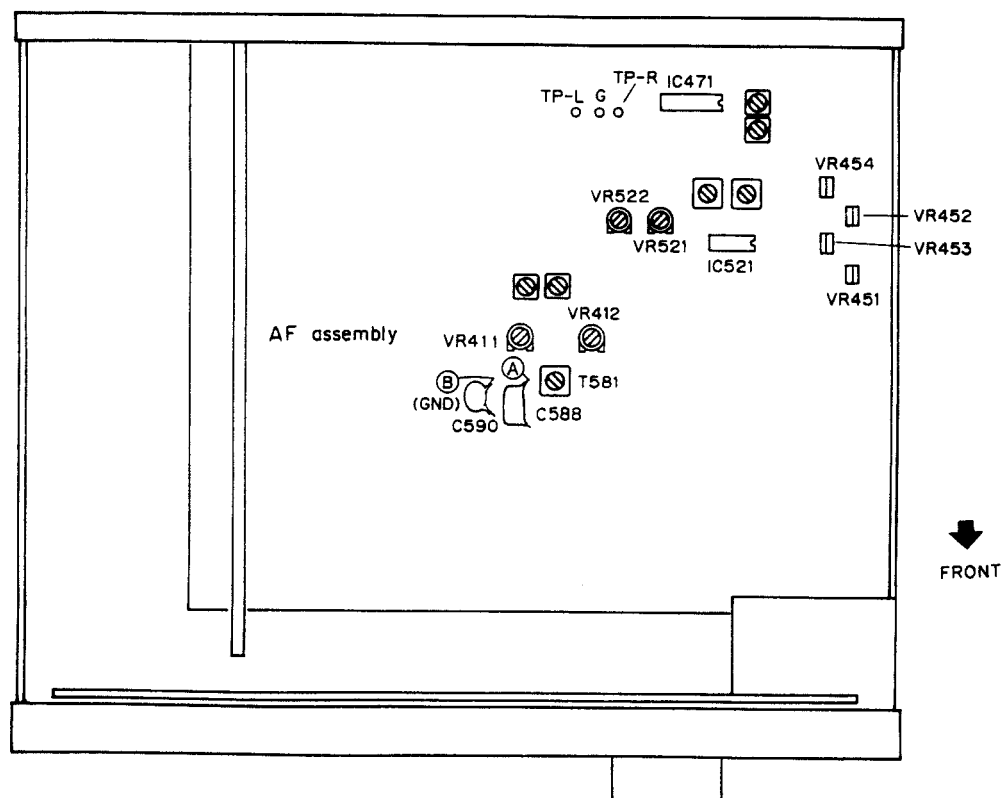


Fig 4.1. Adjustment location

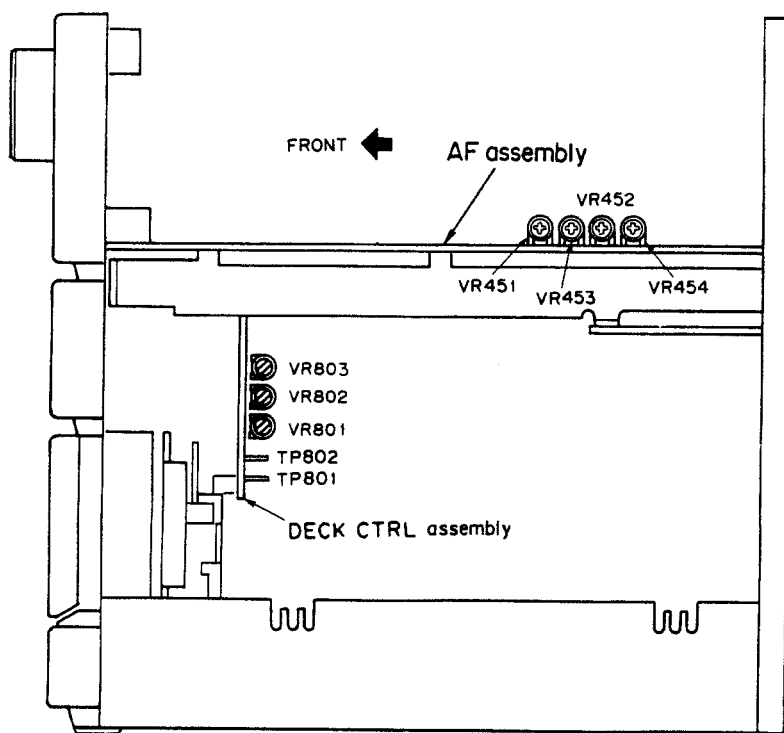


Fig 4.2. Adjustment location

- Adjustment and measurement are usually made in the AF assembly, unless specified otherwise.
- Set the graphic equalizer to FLAT. Depending on the country of destination, the unit may be equipped with a MIC mixing volume control.
If a MIC mixing volume control is built in, please set to the MIN position.
- The function should always be set to "TAPE" unless otherwise specified.

Adjustment of Mechanical System

- Test tape: STD-301 (3 kHz, 30 min)
- Setting of double speed mode: Short-circuit TP801 and TP802 of the DECK CTRL assembly. To release the mode, break the short circuit.

1. Adjustment of tape speed							
No.	Mode	Input signal & Test tape	Adjustment location		Measuring location	Adjustment value	Remarks
1	PLAY	Playback the STD-301 tape to 3 kHz.	Deck I	DECK CTRL Assembly VR801	TP-L (Lch)	Press the PLAY SW and adjust the frequency to 3010 Hz ± 10 Hz. Make sure that the wow and flutter is within 0.2 %.	
2	PLAY (Double speed mode)			—		Press the PLAY SW in double speed mode and confirm that the frequency is 6000 Hz ± 1000 Hz. Note down the figure.	Release the double speed mode after adjustment.
3	PLAY (Double speed mode)		Deck II	DECK CTRL Assembly VR803	TP-R (Rch)	Press the PLAY SW in double speed mode and adjust the frequency to be within ± 30 Hz of the figure recorded at step No. 2.	Release the double speed mode after adjustment.
4	PLAY			DECK CTRL Assembly VR802		Press the PLAY SW and adjust the frequency to 3010 Hz ± 10 Hz. Make sure that the wow and flutter is within 0.2 %.	

Adjustment of Electric System

■ Check and conduct the following before adjusting the electric system.

1. Adjustment of tape speed has been completed.
2. Clean and demagnetize the head using a head eraser.
3. When measured, the level should be 0 dBV = 1 Vrms.
4. Use side A of the specified tape for adjustment.
STD-331B: For adjustment of playback system.
STD-630: NORMAL blank tape
5. Prepare the following measuring devices:
AC millivoltmeter, Low-frequency oscillator, Attenuator, Oscilloscope
6. Adjust both L and R channels, unless specified otherwise.
7. Set the DOLBY NR switches to OFF, unless specified otherwise.
8. Warm up the unit for several minutes before adjustment. Especially before adjusting the frequency characteristics of recording and playback, warm up for 3 to 5 minutes in REC/PLAY mode.
9. Make sure to follow the proper order of the adjustment procedure. Any change in the order may cause an imperfect result.

List of Adjustment

Deck I

1. Head azimuth adjustment
2. Playback level adjustment

Deck II

1. Head azimuth adjustment
2. Playback level adjustment
3. Bias oscillation frequency adjustment
4. Recording level adjustment
5. Adjustment frequency characteristics of recording / playback

Checking of Deck II

1. Make sure the ALC is operating properly.

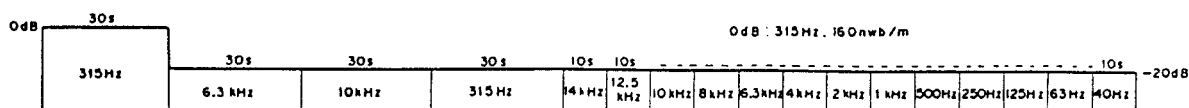


Fig. 4.3 Test tape STD-331B

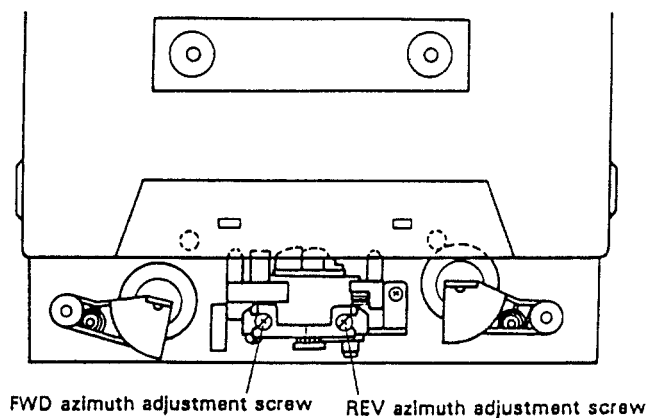


Fig. 4.4 Head azimuth adjustment

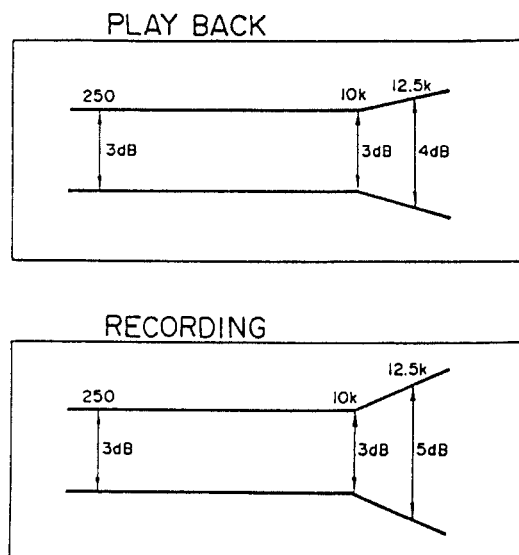


Fig. 4.5 Frequency characteristics

• Head Adjustment of Deck I

- Deck I is provided with an automatic tape selector mechanism.
- Note: Do not switch over FWD and REV while the driver is inserted.

1. Head Azimuth Adjustment

Pro-cedure	Tape selector	Mode	Input signal/test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	NORM	PLAY	Playback the test tape STD-331B (10 kHz, -20 dB).	Head azimuth adjustment screw (Fig. 4-4)	TP-L (Lch) TP-R (Rch)	Maximum playback signal level	Lock the screw with screw lock after completing adjustment.

2. Playback Level Adjustment

- Be sure to make a careful adjustment, as the adjustment determines the DOLBY NR level for playback.

Pro-cedure	Tape selector	Mode	Input signal/test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	NORM	PLAY	Playback the test tape STD-331B (315 Hz, 0 dB).	VR453 (Lch) VR454 (Rch)	TP-L (Lch) TP-R (Rch)	-6.7 dBV	

• Head Adjustment of Deck II

- Deck II is provided with an automatic tape selector mechanism.
- Note: Do not switch over FWD and REV while the driver is inserted.

1. Head Azimuth Adjustment

Pro- cedure	Tape selector	Mode	Input signal/test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	NORM	PLAY	Playback the test tape STD-331B (10 kHz, -20 dB).	Head azimuth adjustment screw (Fig. 4-4)	TP-L (Lch) TP-R (Rch)	Maximum playback signal level	Lock the screw with screw lock after completing adjustment.

2. Playback Level Adjustment

- Be sure to make a careful adjustment, as the adjustment determines the DOLBY NR level for playback.

Pro- cedure	Tape selector	Mode	Input signal/test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	NORM	PLAY	Playback the test tape STD-331B (315 Hz, 0 dB).	VR451 (Lch) VR452 (Rch)	TP-L (Lch) TP-R (Rch)	-6.7 dBV	

3. Bias oscillation frequency adjustment

Pro- cedure	Tape selector	Mode	Input signal/test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	NORM	REC	Load the test tape STD-630 and set to record mode.	—	Area between ① and ② (AF Assembly) shown in Fig. 4-1.	The oscillation frequency is 105 kHz \pm 1 kHz.	

4. Recording Level Adjustment

Pro- cedure	Tape selector	Mode	Input signal/test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	NORM	REC	Apply a signal of 315 Hz to the CD input terminal and set the function to "CD".	Input signal level	TP-L (Lch) TP-R (Rch)	-7.7 dBV	
2	NORM	REC/ PLAY	Record and playback the test tape STD-630 (315 Hz).	VR521 (Lch) VR522 (Rch)	TP-L (Lch) TP-R (Rch)	Repeat the recording and correction so that the playback level of 315 Hz is -6.7 dBV.	

5. Adjustment of frequency characteristics of recording/playback

- As this procedure is for adjustment of the recording bias, be careful not to increase the distortion rate by under-adjusting the bias.

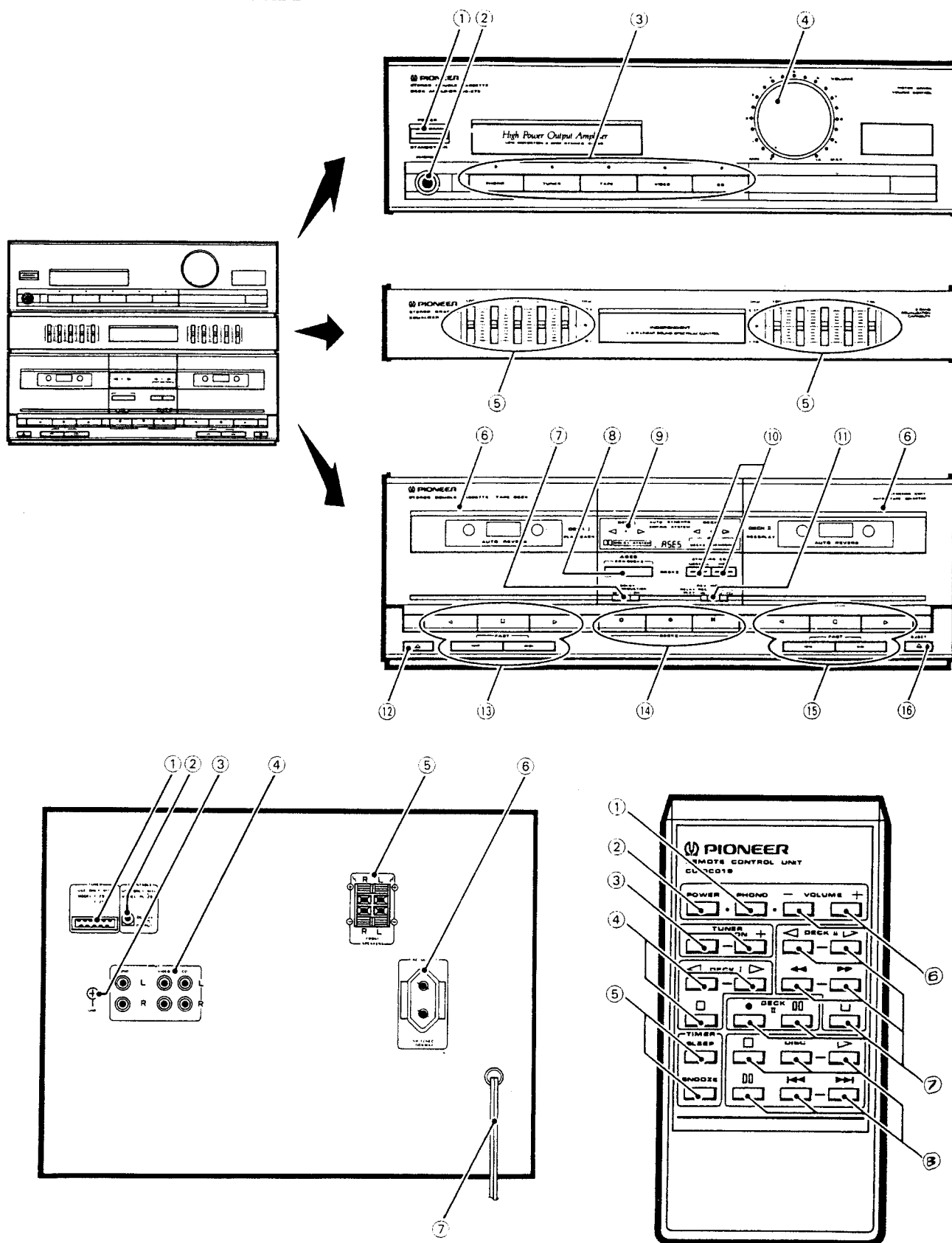
Pro- cedure	Tape selector	Mode	Input signal/test tape	Adjustment location	Measuring location	Adjustment value	Remarks
1	NORM	REC	Apply a signal of 315 Hz to the CD input terminal and set the function to "CD".	Input signal level	TP-L (Lch) TP-R (Rch)	-27.7 dBV	
2	NORM	REC/ PLAY	Record and playback the test tape STD-630 (315 Hz and 10 kHz).	VR411 (Lch) VR412 (Rch)	TP-L (Lch) TP-R (Rch)	Repeat the correction so that the playback level of 10 kHz remains 0 \pm 0.5 dB in relation to 315 Hz.	

• Checking Procedure for Deck II

1. Action of ALC

Pro- cedure	Tape selector	Mode	Input signal/test tape	Adjustment location	Measuring location	Checking value	Remarks
1	NORM	REC	Apply a signal of 315 Hz to the CD input terminal and set the function to "CD".	Input signal level	TP-L (Lch) TP-R (Rch)	-7.7 dBV	
2				+10 dB against the input level of step 1.		-2.7 dBV \pm 2.5 dB	

5. PANEL FACILITIES



REAR PANEL FACILITIES

① TUNER jacks

Connect the tuner cord here.

② TURNTABLE (DC 12 V OUTPUT) jack

This jack supplies power to the turntable (PL-Z93).

③ Ground terminal (GND)

Connect this to the ground terminal on the turntable (except for PL-Z93). Loosen screw with Phillips head screwdriver, connect, and tighten screw.

④ INPUT jacks

PHONO: Connect the output cord of the turntable to these jacks.

VIDEO: Connect to audio output jacks of LD player or VCR, etc.

CD: Connect to output jacks of a CD player.

⑤ SPEAKERS terminals

L: Connect the left speaker system as seen from the listening position.

R: Connect the right speaker system as seen from the listening position.

NOTE:

Connect a speaker system having a nominal impedance ranging from 6 Ω to 16 Ω .

⑥ AC OUTLET (SWITCHED 100 W MAX)

Power supplied through this outlet is turned on and off by the cassette tape deck amplifier's POWER switch. Total electrical power consumption of connected equipment should not exceed 100 W.

NOTE:

Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLET in order to avoid overheating or fire risk.

This can cause the cassette tape deck amplifier to malfunction.

⑦ Power cord

Connect this to the AC wall socket.

FRONT PANEL FACILITIES

- Tapes can be played back on deck I; tapes can be played back and recorded on deck II.
- Sound can be recorded as adjusted by the graphic equalizer.

Amplifier section/Graphic equalizer section

① POWER STANDBY/ON switch

This is the switch for electric power.

ON: When set to the ON position, power is supplied and the unit becomes operational.

STANDBY: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

(The tuner display shows only the time.)

② PHONES (Headphones) jack

For stereo headphones.

NOTE:

There is no output from the speakers when headphones are plugged into PHONES jack.

③ Input selector switches/indicators

[PHONO]

Press to play records on a turntable connected to the PHONO jacks.

[TUNER]

Press to listen to radio broadcast.

[TAPE]

Press to listen to cassette tape.

[VIDEO]

Press to listen to stereo component connected to the VIDEO jacks.

[CD]

Press to listen to a CD player connected to the CD jacks.

④ VOLUME control

⑤ Graphic equalizer controls

Fine adjustment in sound quality are possible using the 5 controls on the graphic equalizer.


Cassette Tape Deck Section

⑥ Cassette door

⑦ DOLBY* NR switch

Set this switch to the ON position to activate the DOLBY NR system.

- Tapes recorded using Dolby noise reduction should always be played back with the noise reduction system on. Sound quality will be adversely affected if played back with the system off, or if tapes recorded using a different noise reduction system are played back with the Dolby NR system on.
- It is recommended that tapes recorded with Dolby B type NR be so marked on the label. This will help prevent incorrect setting of the noise reduction switch during playback.

*
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

⑧ ASES (CD ► DECK II) switch

Used for automatically recording a CD on cassette tape.

⑨ Operation indicators

ASES: Lights when the A.S.E.S. (Auto Synchro Editing System) is operating.

DECK II RECORDING: Lights when recording. Flashes when copying a tape.

Slow flashing = Normal copy

Rapid flashing = High speed copy

Direction (<, >): Show direction of tape travel.

⑩ SYNCHRO COPY switches

Used for tape copying.

NORMAL: Copying from the Deck I tape to the Deck II tape at normal recording/playback speed.

HIGH: Copying at about twice normal tape speed. (Copies can be made in about half the NORMAL time.)

⑪ REV (REVERSE) MODE switch

Switch position	During playback	During recording
RELAY REC PLAY	Plays both tape sides. When one deck finishes playback, the other deck begins playback of both tape sides for 6 times. If there is a tape in only one deck, then that deck continuously plays both sides of the tape for 6 times.	Records on one side (Deck II only).
REC PLAY 	Plays both tape sides for 6 times.	Records on both sides (Deck II only).

⑫ Deck I EJECT switch

⑬ Deck I Operation switches

- ▷ (PLAY: FWD) ... For playing back a tape in the forward mode.
- ◁ (PLAY: REV) ... For playing back a tape in the reverse mode.
- (STOP) ... For stopping the tape.
- ▶▶ (FAST) ... Fast forward in forward mode, rewind in reverse mode.
- ◀◀ (FAST) ... Rewind in forward mode, fast forward in reverse mode.

⑭ DECK II switches

- MUTE (○) ... Used for creating a blank space between songs. The unrecorded space is created for as long as this switch is kept depressed during recording.
- REC (●) ... To set to recording standby mode. Recording begins when you press the PLAY switch (▷ or ▷).
- PAUSE (□□) ... Temporarily stops tape travel. Cancels pause mode when pressed again or press the PLAY switch.

⑮ Deck II Operation switches:

Same as Deck I operation switches ⑬.

⑯ Deck II EJECT switch

Remote control unit

① PHONO key

Sets function to PHONO.

② POWER key

③ TUNER STATION keys

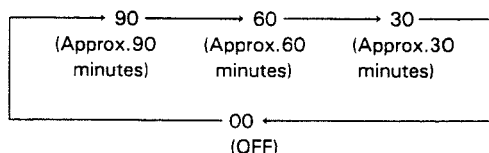
- Before operation, memorize broadcast stations in the STATION CALL switches.
- + ... Stations change in order in the upward direction
- ... Stations change in order in the downward direction.

④ Deck I operation keys

- ▷ ... Forward play
- ◁ ... Reverse play
- ... Stop

⑤ Timer operation keys

SLEEP: Sets the sleep timer. Each time you press this key, the setting changes as shown here. The current setting is shown on the tuner display. Power turns off when your set time has elapsed.



If you press the SLEEP key during SLEEP operation, the display will show the time remaining till power turns off.

SNOOZE: Turns off power if pressed after timer playback begins. Timer playback begins again approx. 5 minutes later.

⑥ VOLUME + (UP)/- (DOWN) keys

When pressed, VOLUME on the amplifier is actually moved by a motor.

⑦ Deck II operation keys:

Same as Deck I operation switches ⑬ plus DECK II switches ⑮.

⑧ CD operation keys

Perform the connections so that the CD player is operated by the remote control unit.

- ▷ ... Play
- DISC ... DISC selection
- ... Stop
- ... Pause
- ◀◀, ▶▶ ... Track search

NOTE:

Note that the DISC selector key on the remote control unit may not operate, depending on the CD player used.

The amplifier input selector automatically switches to the music source being operated when you press the CD playback (▷), cassette tape deck playback (◁, ▷), or tuner station controls.

NOTE:

It is not possible to operate the CD player with the remote control unless the remote control cord is connected

Range of remote control

When the remote control unit is pointed at the remote sensor window on the tuner and any of its keys is pressed, the tuner and other components can be operated by remote control.

Distance: Within a range of approx. 7 meters from the remote sensor window on the tuner.

Angle: Within approx. 30 degrees from the center of the remote sensor window on the tuner.

Remote control will not be possible if there is an obstacle between the remote control unit itself and the remote sensor window on the tuner.

Performance of the remote control unit is adversely affected in the presence of strong fluorescent light. Keep such lights away, specially from the sensor window.

6. SPECIFICATIONS

Cassette tape deck amplifier: DC-Z73

Amplifier Section

Music power	50 W + 50 W (1 kHz, T.H.D. 1 %, 8 Ω)
DIN music power	50 W + 50 W (1 kHz, T.H.D. 1 %, 8 Ω)
Peak music power	290 W (1 kHz, T.H.D. 10%, 6 Ω)
Continuous Power Output (DIN)	33 W + 33 W (1 kHz, T.H.D. 1 %, 8 Ω)
Graphic equalizer frequency band	100 Hz, 330 Hz, 1 kHz, 3.3 kHz, 10 kHz, ± 7 dB
Hum and Noise (DIN, continuous Power/50 mW)	
PHONO	68 dB/60 dB
Total Harmonic Distortion	
(40 Hz to 20,000 Hz, 15 W, 8 ohms)**	No more than 0.2 %

Tape Deck Section

Systems	4 track, 2-channel stereo
Heads	Recording/playback head x 1 Playback head x 1 Erasing head x 1
Motor	DC servo 2 speed motor x 2
Wow and Flutter	No more than 0.09 % (WRMS)
Fast Winding Time	Approximately 95 seconds (C-60 tape)
Frequency Response (– 20 dB recording):	
Normal tape	35 Hz to 14,000 Hz ± 6 dB
CrO ₂ tape	35 Hz to 15,000 Hz ± 6 dB
Signal-to-Noise ratio	
Dolby NR OFF	56 dB
Noise Reduction Effect	
Dolby B type NR ON	More than 10 dB (at 5 kHz)

Furnished Parts

Operating Instructions	1
Remote control unit	1
Dry cell batteries	2

Miscellaneous

Power requirements	a.c. 220 Volts ~ , 50/60 Hz
Power Consumption	216 W
Dimensions	360 (W) x 271 (H) x 329 (D) mm
Weight (without package)	8.3 kg

Accessories

EP Adaptor	1
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• Specifications and design subject to possible modification without notice due to improvement.

** Measured By Audio Spectrum Analyzer.